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QUARTERLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE
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28 JUL 1891

METEOROLOGICAL OFFICE

For 1880.

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1891.

PREFACE.

With this volume the series of Quarterly Weather Reports is closed. Meteorologists will find, in the successive volumes for the twelve years 1869 to 1880 inclusive, continuous records of the march of meteorological phenonema at the seven Observatories in connection with the Office. These were reproduced from the original curves, at first by lithography and subsequently by copper plate engraving, executed in the Office. The methods of operation, with a description of the various instruments employed, are detailed in the Report of the Meteorological Committee for 1869.

For the seven last years of the period, 1874 to 1880 inclusive, the Hourly Readings obtained from the several continuously recording instruments have been lithographed and distributed to Scientific Societies and Libraries. A few copies still remain in stock at the Office.

The present volume contains, in addition to the usual matter, and the Appendix giving Monthly and Five-day Means, two special Appendices. One of these is by Mr. G. M. Whipple, and gives an account of the experiments made at the Kew Observatory with thermometer screens of different patterns during the years 1879, 1880, and 1881. The other is by Mr. F. C. Bayard, and is entitled "Tables and Diagrams illustrating the Diurnal Range of "Barometrical Pressure in the British Isles during the years 1876 to 1880." The Observatories from which the records were obtained were nine in number, seven of them being the Observatories in connection with the Office, and the other two being Greenwich and Bidston respectively.

Robert H. Scott,
Secretary.

Meteorological Office,
June 1891.

CONTENTS.

PAGE.

INTRODUCTORY REMARKS - - - - - - - - - -

WEATHER REPORT—(with Monthly Wind and Weather Charts) :—

January—March - - - - - - - - -

April—June - - - - - - - - - 41

July—September - - - - - - - - - 71

October—December - - - - - - - - - 97

APPENDIX I.—Table I., Mean Monthly Results for the Year - - - - [1]

Table II., Five-Day Means for the Year - - - - - [5]

APPENDIX Ia.—Table I., Mean Monthly Results for the Year in Millimetres and Degrees Centigrade - - - - - - - - - [7]

Table II., Five-Day Means for the Year in Millimetres and Degrees Centigrade - - - - - - - - [11]

APPENDIX II.—Report on Experiments made at the Kew Observatory with Thermometer Screens of different Patterns during 1879, 1880, and 1881, by G. M. Whipple, Superintendent - - - - - - [13]

APPENDIX III.—Tables and Diagrams illustrating the Diurnal Range of Barometric Pressure in the British Isles during the years 1876–1880. Calculated from the Records of Nine Meteorological Observatories in Great Britain and Ireland; by Francis C. Bayard, LL.M., F.R. Met. Soc. - [19]

6

QUARTERLY WEATHER REPORT.

(NEW SERIES.)

1880.

INTRODUCTORY REMARKS.

THE area to which the following Weather Report applies is mainly that contained between the 40th and 65th parallels of North Latitude, and the Meridians of 15° East and West of Greenwich, the British Isles lying nearly centrally within it.

The information on which the Report is based has been derived chiefly from the Daily Weather Reports issued by the Meteorological Office, the curves of the self-recording observatories, and the observations made over the United Kingdom at Stations of the Second Order. These have been supplemented by reference to the "Bulletin International" of Paris, and the North German and Russian Weather Reports.

The Report is divided into three sections as follows:—

Section I.—A General Summary of the chief features of the weather for the quarter, showing the most marked variations which have occurred, arranged with reference to the principal changes which have taken place in the distribution of atmospheric pressure during the period.

Section II.—Tables of the principal Cyclonic and Anticyclonic Systems, showing the size, movements, and other peculiarities of each, accompanied by smaller Tables showing the velocities of wind which were recorded instrumentally during the more serious gales.

Section III.—Remarks on the distribution of Wind, Pressure, Temperature, Vapour, and Rainfall for each month; accompanied by Tables showing the mean values for the different meteorological elements for the observatories, the Stations of the Second Order, and the Telegraphic Reporting Stations, and by two monthly plates. One of these plates shows graphically the relative prevalence of wind from each of eight points, and the other (1) the distribution of mean Pressure, (2) the movements of the depressions referred to in Section 2, (3) the distribution of mean Temperature, and (4) the amount of Rainfall measured at each station.

The Report is further illustrated by two sets of plates; (1) Chart Plates, showing by small maps the distribution of wind and pressure over the British Islands and their neighbourhood at 8 a.m. and 6 p.m. daily; and (2) the usual Plates giving on a reduced scale the curves of the self-recording instruments at the seven Observatories, in the same way as in the previous volumes of this Report.

Section I. needs no explanation.

Section II.—Some of the terms employed may usefully be explained:—

The area enclosed by the outermost of a system of isobars of which the value *decreases* from without inwards is termed an "area of low pressure," or "cyclonic area," or

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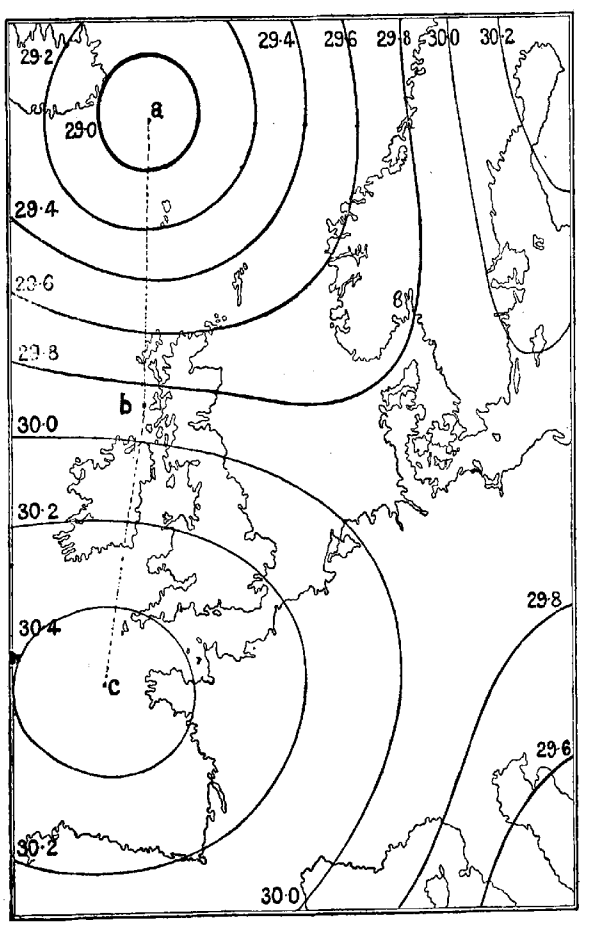
"depression." Similarly, the area enclosed by the outermost of a system of isobars in which the pressure *increases* from without inwards, is termed an "area of high pressure," or "anticyclonic area," or "anticyclone."

In the accompanying figure (which is purely hypothetical) an area of low pressure is shown near Iceland, and an area of high pressure near the mouth of the English Channel, while the existence is indicated of another area of high pressure over the extreme north of Europe, and of a second area of low pressure over the Adriatic and the western part of European Turkey.

The area of somewhat high pressure which unites the high-pressure system over the Bay of Biscay with that over northern Europe, is termed a "ridge" or "col," while the arm of relatively low pressure which extends south-eastwards from the cyclonic system towards the col is termed a "hollow."

The centre of a cyclonic or anticyclonic system is the point at which the pressure is least or greatest, respectively. The centres of the systems shown in the diagram are marked "a" and "c." The position of the centre is not in general known from direct observation, but may be inferred with a sufficient approach to the truth from the form of the interior isobars.



The "depth" of a cyclonic system, and the "height" of an anticyclonic system, is the difference between the height of the barometer at the centre, and at the bounding isobar, which for the systems marked "a" and "c" in the diagram would pass through the point "b." The motion of the system is that of its centre.

The "size" of either system is the extent of the area enclosed by such outermost isobar.

The "form" of the system is the generalized form of its isobars, but as the isobars are only roughly similar to one another this definition does not admit of much precision.

The "gradient" between two places is measured by the proportion which the difference between the simultaneous heights of the barometer at those places bears to the distance between them. The barometric differences are expressed in decimals of an inch, and the unit of distance is 15 nautical miles. The gradient is thus virtually expressed in terms directly comparable with the French measure, in which the units are millimetres for barometric height, and a degree of the meridian (or 60 nautical miles) for distance. The gradients are always to be measured at right angles to the isobars.

In describing the size, depth, or rate of motion of Cyclonic systems, the following scales of nomenclature have been employed :—

SIZE	Very small	When the radius of the outer isobar is less than 50 miles.
	Small	" " " is more than 50, less than 150 miles.
	Moderate	" " " " 150 " 300 "
	Large	" " " " 300 " 500 "
	Very large	" " " " 500 miles.
DEPTH	Very shallow	When the difference of pressure between the margin and centre does not exceed 0·2 in.
	Shallow	" " " " " varies from 0·2 to 0·5 "
	Moderate	" " " " " " 0·5 " 0·9 "
	Deep	" " " " " " 0·9 " 1·4 "
	Very deep	" " " " " exceeds 1·4 ins.
RATE OF MOTION	Very slow	When the average rate during the period referred to is less than 10 miles per hour.
	Slow	" " ranges from 10 to 20 miles per hour.
	Moderate	" " " 20 " 35 "
	Rapid	" " " 35 " 50 "
	Very rapid	" " exceeds 50 miles per hour.

For Anticyclonic systems, the scale of nomenclature for rate of motion has been retained, but for size and height the following rules have been observed :—

For size, anticyclones have been divided into only two classes: (1) Large—or those which cover extensive tracks of the earth's surface, which (as a rule) travel very slowly, and of which only a small portion is usually observable over our area; (2) Small—or those which either (*a*) are subsidiary to larger anticyclones, or (*b*) appear as a temporary phenomenon between two cyclonic disturbances, often travelling at a considerable rate.

For the Height of Anticyclonic systems the following scale is employed :—

VERY SMALL	when the difference between the pressure at the outer isobar and that at the centre is 0·2 in., or less.							
SMALL	"	"	"	"	is more than 0·2 in.	but does not exceed	0·4 in.	
MODERATE	"	"	"	"	"	0·4 "	"	0·7 "
GREAT	"	"	"	"	"	0·7 "	"	1·0 "
VERY GREAT	"	"	"	"	exceeds	1·0 "		

The approximate values for the highest pressures about the centre of each anticyclone are quoted in figures whenever they are known.

The "form" of an anticyclonic system cannot always be ascertained, as it frequently happens that the greater part of it lies over localities for which the observations are either altogether wanting, or are very few in number.

In *Section* III. the tables contain the mean values of the chief meteorological elements for each month: (A) for the Self-recording Observatories, (B) for Stations of the Second Order, and (C) for the Telegraphic Reporting Stations.

Those for the Observatories are arranged in the same order as that in which they appear on the plates, and the data given are mainly identical with those printed in Table I. Appendix I. p. [1], where the monthly values for each observatory are summarised for the whole year. In the latter table, however, the barometrical readings are not reduced to sea level. The Stations of the Second Order and Telegraphic Reporting Stations have been arranged in eleven groups, corresponding with the eleven meteorological districts into which the United Kingdom has been divided for Agricultural and Sanitary purposes, and are printed in order of latitude, beginning with the station which lies furthest north.

The data in Table B. for the Stations of the Second Order have also appeared in the "Meteorological Observations from Stations of the Second Order for 1880," where they are arranged in the form of Monthly Summaries.

The Plates are as follows:

(I.) A Wind Chart showing by "area wind-roses" the prevalence of the wind from each of eight points; the frequency of winds blowing from between any specified points being indicated by the *area* of the portion of the wind-rose comprised between the corresponding limits. In the roses here employed the total area of those portions of the rose which indicate the winds and calms respectively (viz., the "petals," and the small shaded central circle), is equal to one-half the area of the circle round, or within, which they are drawn.

(II.) A Monthly Weather Chart, exhibiting:—

(1.) The Distribution of Mean Pressure, shown by isobars, drawn for each half-tenth of an inch, the mean barometric readings employed being those for 8 a.m. recorded at our Telegraphic Reporting Stations; but the mean pressure for the month at each Observatory, derived from 24 hourly readings each day, is inserted on the map close to the geographical position of the Observatory.

(2.) The movements of the depressions are shown in the following manner. The position of the centre of each of the chief depressions is determined as nearly as possible for 8 a.m. and 6 p.m. on each day during which the depression was within the area of our information; and these points are united by straight lines. The lines have arrow-heads drawn on them, showing the directions of the movements.

(3.) The distribution of mean temperature, shown by isotherms, drawn for each degree Fahrenheit; the mean temperatures employed being the numerical means of the maxima and minima for each day recorded at the Stations of the Second Order and the Telegraphic Reporting Stations. A correction at the rate of 1° F. for each 300 feet of vertical height has been added to the mean values in order to reduce them to the sea level. The mean temperature for each of the observatories, derived from 24 hourly readings each day, is also inserted.

(4.) The Rainfall chart shows in figures the Total Amount of Rain recorded during the month at each station. The values are inserted close to a dot, indicating the geographical position of the station to which it refers.

When both an Observatory and a Telegraphic Reporting Station are situated at the same place, the value for the Observatory has been used in preference to that for the Telegraphic Reporting Station, but both values are given in the tables.

In preparing the Chart Plates the isobars have been drawn, as a rule, for each alternate tenth of an inch; but when the difference between the extreme readings reported and the extreme isobar at any given time exceeds a tenth of an inch, the value of such readings is stated in figures, which are placed in their proper position on the map.

A broken isobar indicates uncertainty as to its course, owing to deficiency of information.

The prevalent winds are shown by arrows, which are drawn flying with the wind. The force is indicated by the number of barbs and feathers thus: ⟫⟶ = a strong gale (forces 8 to 12); ⟶ = a strong wind (forces 5 to 7); ⟶ = a light to moderate wind (forces 1 to 4); and ⊙ = a dead calm.

PART I.

SECTION I.

GENERAL SUMMARY.

THE weather of the quarter was not very remarkable. Owing to the prevalence of anticyclonic conditions the barometric pressure was greater than the average, while the temperature, dealing with the whole kingdom, was nearly normal and the fall of rain considerably less than the mean, the quarter being drier than any corresponding three months had been for many years. The number of depressions observed was not very large, and the winds experienced were mainly from between South-east and South-west, Easterly winds predominating during the last month of the quarter.

January 1st–3rd.—The chart for the morning of January 1st exhibited a large range of barometrical pressure over western Europe, the readings decreasing from 30·7 inches at the centre of an anticyclonic system lying over the Iberian Peninsula to 29·1 inches at the Hebrides. At the same time the barometer was low over the whole of northern and eastern Europe, while to the north-west of the British Isles a depression (No. I) was skirting our shores, following a north-easterly track towards the coast of Norway. With this distribution of pressure strong Westerly and South-westerly winds were experienced over the United Kingdom, accompanied by unusually warm, but cloudy, unsettled, and squally weather.

The barometer rose somewhat over England throughout the 1st, and by midnight the movement had become general and brisk all over the kingdom, although it was temporarily checked a few hours later by a secondary disturbance which appears to have travelled northwards past our western coasts during the 2nd. But by the morning of the 3rd, readings had become high over the greater part of England and Ireland, and the centre of the high-pressure area, which two days before had been observed over Spain, had travelled northwards to France. Over the north of Europe, however, readings were still low, and strong Westerly winds were being experienced on the coast of Norway, while over the British Isles the wind had lulled, with bright but colder weather.

January 4th–15th.—Throughout this interval the barometer continued high and fairly steady, the changes of pressure which took place being both gradual and slight. The anticyclone moved slowly northwards and spread itself over the whole of western Europe, and therefore light anticyclonic airs and calms were experienced over our Islands, with fine weather in the west and north, but with gloomy overcast skies and low temperature over England. On the 13th, however, simultaneously with the appearance of a series of depressions in the extreme north of Scandinavia, the anticyclone commenced to move westwards and the barometer began to fall, especially at the Northern stations; and with this change in the distribution of pressure the wind shifted to the Northward and on the eastern shores of the North Sea it increased a good deal in force. By the close of the 15th the barometer was falling in all parts of the United Kingdom and the weather had become very unsettled.

January 16th–February 4th.—For a day or two the distribution of pressure continued to be somewhat irregular, one or two very shallow depressions being observed near our Islands, while the anticyclone, though much reduced in height, still existed to the south-westward. But on the 18th the barometer rose decidedly, and a new high-pressure system moved upon us from the northward, its centre embracing in a few hours the greater part of the United Kingdom, the North Sea, and the Netherlands. With the development of this system fresh or strong Easterly winds were experienced on the French coast and at the mouth of the Channel, and temperature became generally low; but when, in a few days,

its centre moved eastwards to the Continent the wind veered to the Southward over the greater part of the United Kingdom, and in the west it blew freshly, while the temperature rose everywhere except over central and south-eastern England. By the 30th, however, the warmer weather had extended to these districts also, the anticyclone having moved still further eastward under the influence of a depression (No. II.) which was passing to the northward outside our western coasts; but the movements of the barometer were still generally slight, and it was not until the 4th that a decided giving way of the mercury was observed upon the approach of some large and deep disturbances from the westward. For a day or two before this the weather in Ireland had been wet and unsettled, and with the fall of the barometer the disturbed conditions spread over the whole kingdom.

February 5th–20th.—A period of unsettled stormy weather now set in during which several depressions, some of which were large and deep, passed near to us, and in some instances right across our Islands; the barometer was, therefore, very unsteady throughout the whole time and occasionally very low, while over central and eastern Europe it continued relatively high. The wind, speaking generally, was Southerly, but it varied in direction and force with the position and intensity of the depressions, backing with their approach and veering in most districts as they passed away, and rising at times to a very strong gale. The first depression of the series was not of great importance as it passed well to the northward of Scotland, but it was soon followed by another (No. III.), which caused a rapid fall of the barometer and a strong gale on our western coasts. A few hours later, on the 7th–8th, a shallow system (No. IV.) traversed Great Britain, and this was followed on the 9th by a deep disturbance (No. V.), which was first observed to the southward of Ireland, from whence it passed across England to the Netherlands and became filled up. A decided rise of the barometer ensued and continued till the 11th, when it was checked by the arrival of another depression (No. VI.) which, keeping well to the westward of Ireland, caused a hard gale only on our western coasts. Following this the barometer rose again briskly till the 13th, when another rapid fall was caused by the next depression of the series (No. VII.), which followed a similar track to its immediate predecessor, and caused a renewal of the gale along our western coasts. On the 14th there was again a brisk recovery of pressure at the Irish stations, but it lasted only for a few hours, and by midnight of that day the mercury was falling all over the kingdom, and very rapidly indeed at Valencia. The cause of this fresh fall was another apparently large depression (No. VIII.) which skirted our western littoral and passed away to the northward; but immediately afterwards it was followed by a well-defined depression (No. IX.), whose centre was observed at the mouth of the Channel on the morning of the 16th, from whence, during the day, it travelled northwards across Ireland and disappeared over the ocean beyond. The approach of this disturbance caused a further fall of the barometer, which was very abrupt, in the south-west of England (see Plate X.), the readings at the centre of the depression being about 28·4 inches, and the accompanying gale was very severe and was felt on most of our coasts. From this time till the close of the period the barometer continued low and unsteady owing to the presence of other disturbances to the westward of Ireland, and the weather remained in a very unsettled state; but on the 20th a steady rise of the mercury commenced, and the weather began to improve although a strong Westerly wind was still blowing in the Channel.

February 21st–March 7th.—The rise of the barometer continued almost without interruption till the 25th, and during the interval an area of high pressure, which embraced the British Isles and a large part of the Continent, became developed. A fresh series of depressions then commenced to appear over Northern Europe, and under their influence the barometer again fell generally, and at our northern stations rapidly, the anticyclone moving eventually to the south of Europe, and becoming greatly decreased in height. With these conditions Westerly winds and boisterous unsettled weather became general, although owing to the path of the disturbances lying so far to the northward it was only over the northern half of the kingdom that the strongest winds were felt, while over Scandinavia the gales were very

severe. The first depression of the series (No. XI.) was observed on the 26th, and with only a slight recovery of pressure intervening, this was followed two days later by another (No. XII.), which was very similar in character to the first. The third system, however (No. XIII.), came rather nearer to our Scottish stations on the 1st–2nd, and the accompanying gale was felt for several hours all over the kingdom, the depression being closely followed by a well-marked secondary disturbance, and by other low-pressure centres which kept the barometer very low and unsteady, and the weather very unsettled for several hours. But on the 3rd the mercury began to rise again generally, and with some interruptions the movement continued till the close of the 7th, an anticyclonic centre developing itself meanwhile over the Peninsula, from whence it moved northwards to France, causing slighter barometric gradients and somewhat improved weather to prevail over the United Kingdom.

March 8th–31st.—The barometer remained tolerably steady over the British Isles during nearly the whole of the remainder of the month, the changes which took place being gradual and slight, and caused by the movements of the anticyclonic system, which now became still further developed, and spread itself over the greater part of Europe. On the 12th some remarkably high readings of the barometer were recorded over a portion of Sweden, where the mercury rose to very nearly 31 inches; but this did not continue very long, and during the whole interval the centre of the system moved about a good deal, although as a rule it kept to the eastward or north-eastward of our Islands. With these conditions, light to moderate Easterly or South-easterly winds prevailed over the United Kingdom, with generally quiet and fine weather. On the 30th, however, a general fall of the barometer began upon the approach of depression No. XIV., and the anticyclone moved quickly away to eastern Europe. The centre of the depression having skirted our north-western coasts, was succeeded by a secondary system which passed across the northern half of the kingdom to the North Sea, but although strong winds were experienced very generally, it was only at the northern stations that they attained the force of a gale. At the close of the 31st the barometer had begun to rise again, but the weather remained in an unsettled state.

SECTION II.

TABLE OF CYCLONIC SYSTEMS.—JANUARY—FEBRUARY, 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. I. January 1-3.	No. II. January 29-30.	No. III. February 6-7.
Form	Unknown	Unknown	Unknown
Size	Very large	Large	Large
Depth	Deep	Moderate	Deep
Where first Observed	To the north-westward of the British Isles.	Off our north-western coasts	To the westward of the British Isles
Direction of Motion	North-easterly	Apparently northerly	Northerly
Rate of Motion	Moderate	Probably moderate	Probably moderate
Regions passed over by Steepest Gradients.	The British Isles, the North Sea, and Scandinavia.	The British Isles and the North Sea	The British Isles, the North Sea, and Scandinavia.
Termination	Disappeared over northern Scandinavia.	Disappeared over the ocean	Disappeared to the northward of Great Britain.
Time under Observation	About 36 hours	About half a day	Less than a day
Accompanying Winds	A moderate Southerly to Westerly gale blew over the greater part of the British Isles.	Southerly to South-westerly; fresh to strong; a gale at many western stations.	Southerly to South-westerly; fresh to strong, and rising to a hard gale in the west, and to a fresh gale at many other stations.
„ Weather	Generally cloudy and dull, with high temperature; sky clearing on the 3rd.	Cloudy, wet, and mild in the west and north, but very cold, with fog, in the south-east of England; during the 30th temperature rose rapidly in the latter district.	Generally cloudy or dull, with rain
„ Rainfall	Rain fell in most districts, but, as a rule, not very heavily. Slight thunderstorms in the north and west on the 2nd.	Confined to the western stations, at some of which the fall was heavy.	Rain fell generally, but not heavily
REMARKS	The track of this depression lay beyond our Islands to the north-west, and therefore some of its characteristics can only be imperfectly ascertained. During the night of the 1st-2nd a subsidiary depression appears to have skirted our western coast, causing a marked fall and rise of the barometer which is shown on Plate I.; but no trace of this disturbance is shown on the Chart Plates for these dates.	Only a portion of this system came within the area of our observations, its track lying a good distance beyond our western coasts. Just before its arrival a deep depression had passed to the eastward, just showing itself at the most northern stations in Scandinavia.	The centre of this system passed outside our western coasts, but not at a very great distance, during the night of the 6th-7th. The accompanying gale was most felt at the western and northern stations, although in all parts of the kingdom the wind freshened considerably. The depression was accompanied by a general rise of temperature.

SECTION II.

TABLE OF CYCLONIC SYSTEMS.—FEBRUARY, 1880.

No. IV. February 7-8.	No. V. February 9-10.	No. VI. February 11-12.	No. VII. February 13-14.
Elliptical	Nearly circular	Unknown	Unknown.
Moderate	Large	Probably large	Probably very large.
Shallow	Deep	Probably deep	Deep.
At the mouth of the Channel	At the entrance to St. George's Channel.	To the westward of Ireland	Off the south-west of Ireland.
Northerly	Easterly	Apparently northerly	Apparently northerly.
Moderate	Slow	Doubtful	Probably rapid.
Great Britain	Great Britain and northern France	The western portion of the British Isles.	The British Isles.
Travelled away to the northward of Scotland.	Became filled up over the North Sea	Travelled away over the ocean to the north-west of Scotland.	Disappeared to the northward of Great Britain.
About 12 hours	About a day	About half a day	About 24 hours.
Fresh or strong Southerly to Westerly winds; a gale was reported from a few stations.	Southerly and South-westerly over the south of England and the Channel, Easterly in the north of England and north of Ireland; a severe gale over the southern half of the kingdom.	A hard Southerly gale blew over Ireland and western Scotland; in the east of England the wind was moderate in force.	Generally from South-east to South-west, fresh or strong; but in the west and north-west rising to a hard gale.
Dull and rainy	Fine at the northern stations, but dull and rainy elsewhere.	Rainy and dull over Ireland, but fine over the greater part of Great Britain.	Dull, rainy weather, spreading from the western stations eastward across England.
Very general, and in St. George's Channel heavy.	Rain fell in most parts of the kingdom, but not very heavily.	Moderately heavy fall in the south of Ireland, but only slight elsewhere.	Partial, and nowhere very heavy.
This was a small depression which made its appearance on our south-west coast towards the close of the 7th, and travelled northwards up St. George's Channel and apparently across the southern half of Scotland during the night. From the changes of wind recorded at Glasgow and Aberdeen it seems to have passed to the eastward of both those places, and to have disappeared over the ocean to the northward of Scotland.	This well-defined depression travelled across the centre of England to the North Sea, but during the latter part of the 9th it rapidly became filled up, so that on the morning of the 10th, when its centre was not far from the Helder, it had become unimportant. Towards the close of the 10th a small depression made its appearance near to Brest, and travelled eastwards towards Paris, causing an increase of wind on the French coast.	The path of this depression lay at some distance beyond our western coasts, and therefore nothing can be said definitely as to its chief characteristics. The gale which accompanied it was confined almost entirely to our western and north-western stations.	This was another depression whose track lay beyond our western coasts, and of which, therefore, very little can be ascertained as to its character and extent.

TABLE OF CYCLONIC SYSTEMS.—FEBRUARY 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. VIII. February 15.	No. IX. February 16-17.
Form	Doubtful	Circular
Size	Very large	Very large
Depth	Deep	Deep
Where first observed	Off the south-west coast of Ireland	At the mouth of the Channel
Direction of Motion	Probably northerly	Northerly
Rate of Motion	Apparently rapid	Moderate
Regions passed over by steepest Gradients	The British Isles, north-western France, and the North Sea.	The British Isles, northern France, and the North Sea.
Termination	Disappeared over the ocean	Travelled away over the ocean to the north-west of Scotland.
Time under Observation	Less than half a day	Less than one day
Accompanying Winds	A South-easterly to South-westerly gale blew over the greater part of the kingdom, but with greatest strength in the south-west and west.	Easterly, backing to South-east and South-west, and blowing a strong gale, which was very severe on most of our coasts.
„ Weather	Dull, cloudy, and foggy, with rain in the south and west; for a time it was fine at the northern stations.	At first fine in the north, dull and rainy elsewhere, the rain extending northwards during the day.
„ Rainfall	Rather heavy in the south-west; moderate elsewhere.	General, and in places heavy
REMARKS	This depression appears to have passed outside our western coasts during the night of the 15th, but its path was apparently not very near our stations, and it was rapidly followed by depression No. IX. A reference to the barometer trace for Valencia on Plate X. will, however, show that these were two distinct systems, a rise of the barometer intervening between the two.	The track of this well-defined depression passed northwards over Ireland, the records of Falmouth and Valencia observatories showing that it lay a little to the westward of the former, and to the eastward of the latter place. In its rear a subsidiary disturbance was observed travelling over the eastern coast of Great Britain. At 8 a.m. on the 17th the centre was over Norfolk, and about six hours later it seems to have reached Aberdeen, so that its progress was very rapid. On the evening of the 17th the barometer at Valencia indicated the passage to the westward of a third disturbance, which, however, did not cause a gale on our coasts.

TABLE OF CYCLONIC SYSTEMS.—FEBRUARY 1880.

No. X. February 18-19.	No. XI. February 25-26.	No. XII. February 27-28.
Doubtful	Elliptical	Elliptical.
Very large	Very large	Very large.
Deep	Very deep	Very deep.
To the westward of Ireland	To the northward of Great Britain	On the coast of Norway.
Apparently northerly	Easterly	Easterly.
Probably moderate	Moderate	Moderate.
The British Isles, northern France, the North Sea, and Scandinavia.	The British Isles, the North Sea, and Scandinavia.	The British Isles, the North Sea, and Scandinavia.
Disappeared to the north-west of Great Britain	Travelled away over Russia	Disappeared over Finland.
About one day	Less than a day	About one day.
Southerly to South-westerly; strong to a gale	Westerly to North-westerly, strong; a gale at the northern stations.	Westerly to North-westerly, strong, increasing to a gale over the northern half of the kingdom.
Cloudy, unsettled, and showery	Cloudy, but moderately fine on the whole. Squally in the north.	Fine in the east and south-east of England; cloudy, rainy, and squally elsewhere.
Rain fell generally, but as a rule the falls were not heavy.	Rain fell over the northern half of the kingdom, but nowhere heavily.	Rain fell in the north and west, but not heavily as a rule.
This was probably two distinct disturbances rather than one, but as their centres lay over the ocean beyond our most western stations nothing very definite can be ascertained as to this and other points connected with the system.	The track of this depression lay a good way to the northward of Great Britain, and it was only on our northern coasts that the accompanying gale was felt. In Scandinavia the gale was very severe.	This disturbance was very similar to the one which had just preceded it, and followed a somewhat similar track.

TABLE OF CYCLONIC SYSTEMS.—MARCH, 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XIII. March 1-3.	No. XIV. March 31.
Form	Doubtful	Doubtful.
Size	Very large	Very large.
Depth	Very deep	Moderate.
Where first Observed	To the northward of Great Britain	In the neighbourhood of the Hebrides.
Direction of Motion	Apparently north-easterly	Apparently northerly.
Rate of Motion	Probably moderate	Probably moderate.
Regions passed over by Steepest Gradients	The British Isles, the North Sea, and Scandinavia.	The British Isles and North Sea.
Termination	Disappeared towards the north of Norway	Disappeared over the ocean to the north-west of Scotland.
Time under Observation	About two days	Less than a day.
Accompanying Winds	Generally Westerly; a gale on all our coasts	Southerly, veering to West and North-west; moderate to strong, and reaching the force of a gale in the north.
„ Weather	Dull and unsettled, with snow in places	Dull, squally, and unsettled, with rain.
„ Rainfall	Pretty general, and at some western stations rather heavy.	General, and at some northern stations heavy.
REMARKS	During this period more than one centre of low pressure passed to the northward of our Islands, but it is difficult to distinguish between them, owing to the distance from our shores at which they passed. Very early on the morning of the 3rd a subsidiary disturbance crossed the northern portion of the kingdom, and is shown on the chart for that day (Chart Plate 4) to be lying over the North Sea, and travelling to the eastward.	The centre of this disturbance kept outside our north-western coasts, but during the day a subsidiary centre of low pressure, which was not accompanied by very steep gradients, passed from west to east over England, and reached the North Sea during the night.

TABLES OF GALES.

No. 1. (CYCLONIC SYSTEM, No. I.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Jan. 1–3, 1880.													
Sandwick	Midt. (1st).	W.S.W.	2 a.m. (2nd).	W.S.W.	47	4	11 a.m. (3rd).	W. by N.	35	1 a.m. (3rd).	W.N.W.	52	—
			7 a.m. (2nd).	S.W.byW.	43	3							
			Noon (2nd).	W.S.W.	45	2							
			3 p.m. (2nd).	S.W.byW.	40	1							
			8 p.m. (2nd).	W.S.W.	46	10							
Aberdeen.	3 p.m. (1st).	S.W. by S.	—	—	—	—	5 p.m. (1st).	S. by W.	2	3 p.m. (1st).	S.W. by S.	34	—
	9 p.m. (1st).	S.S.W.	—	—	—	—	11 p.m. (1st).	S.S.W.	2	9 p.m. (1st).	S.S.W.	35	—
	Midt. (2nd).	W.	3 a.m. (3rd).	W. by N.	40	1	4 a.m. (3rd).	W.	4	3 a.m. (3rd).	W. by N.	40	—
	5 a.m. (3rd).	W. by N.	—	—	—	—	8 a.m. (3rd).	S.W.	3	6 a.m. (3rd).	W. by N.	37	—
										7 a.m. (3rd).	W.N.W.		
Glasgow.	7 a.m. (1st).	S.W.	Noon (1st).	S.W. by S.	43	1	2 a.m. (2nd).	S.W.byW.	19	Noon (1st).	S.W. by S.	43	—
			2 p.m. (1st).	S.W. by S.	40	1							
			11 p.m. (1st).	S.W.	40	1							
	10 a.m. (2nd).	S.W.	—	—	—	—	11 p.m. (2nd).	S.W.byW.	13	2 p.m. (2nd).	S.W.	39	—
Alnwick Castle.	1 a.m. (1st).	W.by S.	6 a.m. (1st).	W. by S.	41	2	9 p.m. (1st).	S.W. by S.	20	Noon (1st).	W. by S.	49	—
			9 a.m. (1st).	W.S.W.	43	1							
			11 a.m. (1st).	W. by S.	45	7							
			7 p.m. (1st).	S.W.	45	2							
	10 p.m. (1st).	S.W. by S.	1 a.m. (2nd).	S.W.by S.	48	4	7 a.m. (2nd).	W. by S.	9	4 a.m. (2nd).	W. by S.	50	—
	8 a.m. (2nd).	W. by S.	9 a.m. (2nd).	W.S.W.	40	1	2 a.m. (3rd).	W.	18	1 p.m. (2nd).	W. by S.	52	Velocity exceeded 30 miles at 3, 8, and 9 a.m. on 3rd.
			11 a.m. (2nd).	W.S.W.	47	8							
			8 p.m. (2nd).	W.S.W.	46	4							
Seaham	3 p.m. (1st).	S.W. by S.	—	—	—	—	6 p.m. (1st).	S.W.	3	3 p.m. (1st).	S.W. by S.	35	—
	9 p.m. (1st).	S.W. by S.	1 a.m. (2nd).	S.W.byS.	41	1	4 a.m. (2nd).	S.W.	7	1 a.m. (2nd).	S.W. by S.	41	—
Stonyhurst.	1 a.m. (1st).	W.S.W.	—	—	—	—	5 a.m. (1st.)	W.S.W.	4	4 a.m. (1st).	W.S.W.	31	34 miles were recorded at Midnight 1st.

(*Continued.*)

No. 1. (CYCLONIC SYSTEM, No. I.)—*continued.*

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Jan. 1–3, 1880.													
Holyhead	3 a.m. (1st).	S.W. by S.	—	—	—	—	6 a.m. (1st.)	S.W. by S.	3	4 a.m. (1st).	S.W. by S.	37	—
	7 a.m. (1st).	S.W. by S.	1 p.m. (1st).	S.S.W.	42	1	3 a.m. (2nd).	S.W.byW.	20	9 p.m. (1st).	S.S.W.	49	—
			3 p.m. (1st).	S.S.W.	43	1				10 p.m. (1st).	S. byW.		
			6 p.m. (1st).	S.S.W.	42	1							
			8 p.m. (1st).	S.S.W.	46	6							
	6 a.m. (2nd).	W. by S.	—	—	—	—	8 a.m. (2nd).	W. by S.	2	6&7a.m. (2nd).	W. by S.	33	—
	11 a.m. (2nd).	S.W.	—	—	—	—	1 a.m. (3rd).	W.S.W.	14	2, 5, & 6 p.m. (2nd).	S.W.	35	—
										8 p.m. (2nd).	s.w.bw.		
Armagh	1 p.m. (1st).	S.W.	—	—	—	—	3 p.m. (1st).	S.W. by S.	2	1 p.m. (1st).	S.W.	33	35 miles were recorded at 9 a.m. 1st.
	5 p.m. (1st).	S.S.W.	—	—	—	—	11 p.m. (1st).	S.W.	6	9 p.m. (1st).	S.S.W.	38	—
Valencia	—	—	1 a.m. (1st).	S.W.	50	20	1 a.m. (2nd).	W.	24	6&7p.m. (1st).	S.S.W.	58	30 and 40 miles per hour were continuously recorded from 11 p.m. 30th Dec. 1879 till 1 a.m. 2nd Jan. 1880.
	8 a.m. (2nd).	W. by S.	—	—	—	—	3 p.m. (2nd).	W. by S.	7	1 p.m. (2nd).	S.W.byW.	38	—
Falmouth	8 a.m. (1st).	W.S.W.	5 p.m. (1st).	S.W. by S.	40	1	6 a.m. (2nd).	W. by N.	22	5 p.m. (1st).	S.W. by S.	40	Strong winds were also registered from 4 a.m. 31st Dec. 1879 till 6 a.m. 1st Jan. 1880.

No. 2. (CYCLONIC SYSTEM, No. II.)

Jan. 29–31, 1880.													
Sandwick	9 a.m. (30th).	S. by E.	—	—	—	—	1 p.m. (30th).	S.W. by S.	4	10 a.m. (30th).	S.	38	—
Seaham	10 a.m. (30th).	S.	—	—	—	—	3 p.m. (30th).	S.	5	11 a.m. (30th).	S.	35	—
Holyhead	7 a.m. (29th).	S.	3 p.m. (29th).	S.	43	15	4 a.m. (31st).	S.	45	7 p.m. (29th).	S.	47	—
			9 a.m. (30th).	S. by E.	43	6				10 a.m. (30th).	S. by E.		
Valencia	—	—	7 p.m. (29th).	S.	46	10	5 a.m. (30th).	W.S.W.	10	4 a.m. (30th).	S.	50	—

No. 3. (Cyclonic System, No. III.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Feb. 6–7, 1880.													
Sandwick	9 a.m. (6th).	S.	2 p.m. (6th).	S. by E.	43	12	4 a.m. (7th).	S.W.	19	3 p.m. (6th).	S. by E.	46	—
Aberdeen	8 p.m. (6th).	S. by E.	—	—	—	—	11 p.m. (6th).	S.S.E.	3	9 p.m. (6th).	S. by E.	37	—
Glasgow.	9 p.m. (6th).	S. by E.	10 p.m. (6th).	S. by E.	44	1	1 a.m. (7th).	S.S.W.	4	10 p.m. (6th).	S. by E.	44	—
	2 a.m. (7th).	S.W. by S.	—	—	—	—	9 a.m. (7th).	S.W. by S.	7	3 a.m. (7th).	S.W.	36	—
Alnwick Castle.	Midt. (6th).	S.	—	—	—	—	10 a.m. (7th).	S.W. by S.	10	Midt. (6th).	S.	37	—
Stonyhurst.	10 p.m. (6th).	S. by E.	Midt. (6th).	S. by E.	42	1	2 a.m. (7th).	S.S.W.	4	Midt. (6th).	S. by E.	42	—
Holyhead	Noon (6th).	S.	3 p.m. (6th).	S.	51	9	3 a.m. (7th).	S.W. by S.	15	9 p.m. (6th).	S. by E.	62	—
Armagh	5 p.m. (6th).	S.	—	—	—	—	10 p.m. (6th).	S.W.	5	7 p.m. (6th).	S.	38	—
	11 p.m. (6th).	S.W. by S.	—	—	—	—	2 a.m. (7th).	S.W. by S.	3	1 a.m. (7th).	S.W. by S.	31	—
Valencia	3 a.m. (6th).	S.	8 a.m. (6th).	S.	49	12	2 a.m. (7th).	W.S.W.	23	5 p.m. (6th).	S.	61	—
			Midt. (6th).	S.W. by W.	40	1							
Falmouth.	7 p.m. (6th).	S.	—	—	—	—	1 a.m. (7th).	S.W. by S.	6	7 p.m. (6th).	S.	34	—

No. 4. (Cyclonic System, No. VI.)

Feb. 11–12, 1880.													
Sandwick	—	—	8 p.m. (11th).	S.E. by S.	43	13	Noon (12th).	S. by E.	16	1 a.m. (12th).	S.S.E.	49	—
Holyhead	6 p.m. (11th).	S.	9 p.m. (11th).	S.S.E.	41	5	4 a.m. (12th).	S.S.W.	10	Midt. (11th).	S.S.E.	43	—
Valencia.	8 a.m. (11th).	S. by W.	11 a.m. (11th).	S.	45	8	7 p.m. (11th).	S.W. by S.	11	5 p.m. (11th).	S.	50	—
	3 a.m. (12th).	S.W.	—	—	—	—	6 a.m. (12th).	S.W.b.W.	3	5 a.m. (12th).	S.W.byW.	34	37 miles were registered at 7 a.m. 12th.
	9 a.m. (12th).	S.W.	—	—	—	—	1 p.m. (12th).	W.	4	11 a.m. (12th).	W.	34	

No. 5. (Cyclonic System, No. VII.)

Feb. 13–14, 1880.													
Sandwick.	1 a.m. (14th).	S.E. by S.	—	—	—	—	3 a.m. (14th).	S.E.	2	2 a.m. (14th).	S.E. by S.	32	—
	4 a.m. (14th).	S.E.	6 a.m. (14th).	S.E.	43	7	6 p.m. (14th).	S. by E.	14	7 a.m. (14th).	S.E.	46	—
Aberdeen	9 a.m. (14th).	S.S.E.	—	—	—	—	Noon (14th).	S. by E.	3	10 a.m. (14th).	S.S.E.	33	—
Holyhead	7 p.m. (13th).	S.S.E.	9 p.m. (13th).	S.S.E.	50	10	Noon (14th).	S.	17	4 a.m. (14th).	S.S.E.	57	—
Armagh.	5 p.m. (13th).	S.E.	Midt. (13th).	S.S.E.	42	2	4 a.m. (14th).	S.S.E.	11	1 a.m. (14th).	S.S.E.	43	—
Valencia	8 a.m. (13th).	S.E.	10 a.m. (13th).	S.E. by S.	50	21	8 a.m. (14th).	S.W.b.W.	24	1 & 2 p.m. (13th).	S.E. by S.	59	—
Falmouth.	7 p.m. (13th).	S.E. by S.	10 p.m. (13th).	S.S.E.	44	6	4 a.m. (14th).	S. by W.	9	Midt. (13th).	S. by E.	48	—
Yarmouth.	10 a.m. (14th).	S. by E.	—	—	—	—	1 p.m. (14th).	S.	3	10 a.m. (14th).	S. by E.	34	—

No. 6. (Cyclonic System, No. VIII.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Feb. 15–16, 1880.													
Sandwick	7 p.m. (15th).	S.E.	10 p.m. (15th).	S.E.	46	15	—	—	18	2 a.m. (16th).	S.E. by E.	50	Velocity did not fall below 30 miles, this system being closely followed by No. IX.
Aberdeen	9 p.m. (15th).	S.E. by S.	Midt. (15th).	S.E. by S.	43	4	9 a.m. (16th).	S.E. by S.	12	1 a.m. (16th).	S.E.	44	—
Alnwick Castle.	10 p.m. (15th).	S.S.E.	—	—	—	—	2 a.m. (16th).	S.S.E.	4	Midt. (15th).	S.S.E.	32	—
Holyhead	3 p.m. (15th).	S.E.	9 p.m. (15th).	S.E. by S.	41	2	2 a.m. (16th).	S. by E.	11	9 p.m. (15th).	S.E. by S.	41	—
Armagh	7 p.m. (15th).	S.E. by E.	—	—	—	—	9 p.m. (15th).	S.E.	2	8 p.m. (15th).	S.E. by E.	37	—
Valencia	3 a.m. (15th).	S.E.	7 a.m. (15th).	S.E. by E.	47	7	10 p.m. (15th).	S.W. by S.	19	11 a.m. & Noon (15th).	S.E. by E.	54	—
			5 p.m. (15th).	S. by E.	44	3							
Falmouth	6 a.m. (15th).	S.E. by S.	10 a.m. (15th).	S.E.	45	6	5 p.m. (15th).	S.	11	2 p.m. (15th).	S.E. by S.	47	—
Yarmouth	8 p.m. (15th).	S.E.	—	—	—	—	Midt. (15th).	S.S.E.	4	8&9p.m. (15th).	S.E.	35	—

No. 7. (Cyclonic System, No. IX.)

Feb. 16–17, 1880.													
Sandwick	1 p.m. (16th).	S.E.b.E.	2 p.m. (16th).	S.E.	40	1	Noon (17th).	E.S.E.	23	11 p.m. (16th).	E.S.E.	61	See Table No. 6.
			4 p.m. (16th).	S.E. by E.	52	13				1 a.m. (17th).			
			10 a.m. (17th).	S.E. by E.	40	1							
Aberdeen	11 a.m. (16th).	S.E.	1 p.m. (16th).	S.E.	44	10	3 a.m. (17th).	S.S.E.	16	9 p.m. (16th).	S.E. by E.	49	—
Alnwick Castle.	2 p.m. (16th).	S.E. by E.	—	—	—	—	8 p.m. (16th).	S.S.E.	6	4 p.m. (16th).	S.E.	36	—
Seaham	1 p.m. (16th).	E.S.E.	—	—	—	—	6 p.m. (16th).	S.E. by E.	5	2, 3, & 4 p.m. (16th).	E.S.E.	35	—
Stonyhurst	—	—	4 p.m. (16th).	S.E.	41	3	10 p.m. (16th).	S.	6	5 p.m. (16th).	S.E. by S.	42	—
Holyhead	9 a.m. (16th).	E. by N.	10 a.m. (16th).	E. by N.	42	3	3 p.m. (16th).	E.	6	10 a.m. (16th).	E. by N.	42	—
										Noon (16th).	E.		
	4 p.m. (16th).	S.S.E.	5 p.m. (16th).	S. by E.	46	5	1 a.m. (17th).	S. by W.	9	6 p.m. (16th).	S by W.	50	—
			11 p.m. (16th).	S.S.W.	40	1							
Armagh	9 p.m. (16th).	S.S.W.	—	—	—	—	2 a.m. (17th).	S.S.W.	5	9 p.m. (16th).	S.S.W.	34	—
Valencia	8 a.m. (17th).	S. by W.	1 p.m. (17th).	S.S.E.	40	2	11 p.m. (17th).	S.W.	15	1&2p.m. (17th).	S.S.E.	40	—
Falmouth	3 a.m. (16th).	S.E. by S.	6 a.m. (16th).	E.S.E.	48	11	6 p.m. (16th).	S.W.	15	1 p.m. (16th).	S.W. by S.	59	—
	1 p.m. (17th).	S.	6 p.m. (17th).	S.	41	2	9 p.m. (17th).	S.S.W.	8	6 p.m. (17th).	S.	41	—

(*Continued.*)

No. 7 (Cyclonic System, No. IX.)—*continued.*

Stations.	Velocity 30—40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Feb. 16–17, 1880.													
Kew	10 a.m. (16th).	S.E by E.	—	—	—	—	6 p.m. (16th).	S.S.W.	8	3 p.m. (16th).	S. by W.	37	—
Yarmouth.	9 a.m. (16th).	S.E. by S.	11 a.m. (16th).	S.E. by S.	47	6	6 p.m. (16th).	S.	9	2 p.m. (16th).	S.E. by S.	50	—
	2 a.m. (17th).	S.E.	3 a.m. (17th).	S.E. by S.	42	2	6 a.m. (17th).	S.	4	3 a.m. (17th).	S.E. by S.	43	—

No. 8. (Cyclonic System, No. X.)

Feb. 18–20, 1880.													
Sandwick	11 p.m. (18th).	S.E. by S.	—	—	—	—	2 a.m. (19th).	E.S.E.	3	1 a.m. (19th).	S.E.	33	—
Stonyhurst.	8 p.m. (18th).	S.S.E.	—	—	—	—	10 p.m. (18th).	S. by W.	2	8 p.m. (18th).	S.S.E.	33	—
Holyhead	1 p.m. (18th).	S.by W.	4 p.m. (18th).	S. by E.	42	3	2 a.m. (20th).	S.W. by S.	37	4 p.m. (18th).	S. by E.	44	—
			9 a.m. (19th).	S.	41	1							
			4 p.m. (19th).	S. by W.	42	2							
			8 p.m. (19th).	S. by W.	40	1							
Valencia.	8 a.m. (18th).	S.W.	Noon (18th).	S.	45	17	8 p.m. (19th).	W.S.W.	36	3 & 5 p.m. (18th).	S. by W.	51	—
			6 a.m. (19th).	S.W. by S.	40	1							
			10 a.m. (19th).	S. by W.	42	3							
			3 p.m. (19th).	S.W. by S.	40	1							
	9 p.m. (19th).	S.W.byW.	—	—	—	—	1 a.m. (20th).	W.S.W.	4	10 p.m. (19th).	S.W.byW.	36	—
	2 a.m. (20th).	S.W.byW.	—	—	—	—	7 a.m. (20th).	W.S.W.	5	2 & 3 a.m. (20th).	S.W.byW.	34	—
Falmouth	2 p.m. (18th).	S.byW.	5 p.m. (18th).	S.W. by S.	40	2	9 p.m. (20th).	W.S.W.	55	10 p.m. (18th).	S.S.W.	43	—
			10 p.m. (18th).	S.S.W.	43	2				11 p.m. (18th).	S.W. by S.		
			11 a.m. (19th).	S.W. by S.	43	1				11 a.m. (19th).	S.W. by S.		
			1 p.m. (19th).	S.W. by S.	41	1				9 p.m. (19th).	S.W. by S.		
			4 p.m. (19th).	S.S.W.	41	1				Noon (20th).	S.W.byW.		
			6 p.m. (19th).	S.W. by S.	42	4				3 p.m. (20th).	S.W.		
			11 a.m. (20th).	S.W. by S.	42	3							
			3 p.m. (20th).	S.W.	43	1							
Kew	Midt. (18th).	S.S.W.	—	—	—	—	6 a.m. (19th).	S.W. by S.	6	3 a.m. (19th).	S.W. byS.	39	—
	11 a.m. (19th).	S.W. by S.	—	—	—	—	2 p.m. (19th).	S.W. by S.	3	Noon (19th).	S.W. byS.	35	—
	9 p.m. (19th).	S.Wby S.	—	—	—	—	Midt. (19th).	S.W. by S.	3	11 p.m. (19th).	S.W. by S.	35	—

No. 9. (Cyclonic System, No. XI.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Feb. 25–26, 1880.													
Sandwick	3 a.m. (25th).	W.S.W.	7 a.m. (25th).	W.S.W.	41	1	—	—	—	4 a.m. (26th).	W.N.W.	66	The clock stopped at 9 a.m. 26th, the velocity at that time was 37 miles per hour, and the direction N.W. by N.
			10 a.m. (25th).	W.S.W.	43	1							
			Noon (25th).	W.S.W.	42	1							
			8 p.m. (25th).	W.S.W.	49	12							
Aberdeen	—	—	4 a.m. (26th).	W. by N.	43	3	6 p.m. (26th).	W.N.W.	14	1 p.m. (26th).	W.N.W.	47	
			9 a.m. (26th).	W.	44	8							
Glasgow	11 a.m. (25th).	W.S.W.	—	—	—	—	2 p.m. (25th).	S.W. by W.	3	11 a.m. (25th).	W.S.W.	35	—
	5 p.m. (25th).	W. by S.	6 p.m. (25th).	W. by S.	40	1	8 p.m. (25th).	S.W. by W.	3	6 p.m. (25th).	W. by S.	40	—
	9 p.m. (25th).	S.W. by W.	—	—	—	—	Midt. (25th).	S.W.	3	10 p.m. (25th).	W.S.W.	39	—
	1 a.m. (26th).	S.W. by W.	—	—	—	—	3 a.m. (26th).	W.	2	1 a.m. (26th).	S.W. by W	32	—
	9 a.m. (26th).	N.W.b.W.	—	—	—	—	Noon (26th).	W.N.W.	3	9 a.m. (26th).	N.W.b.W.	32	—
Alnwick Castle.	—	—	8 a.m. (25th).	W.	45	2	4 p.m. (25th).	W. by S.	8	8 a.m. (25th).	W.	45	—
			11 a.m. (25th).	W. by S.	40	1							
	—	—	7 p.m. (25th).	W. by S.	49	7	6 a.m. (26th).	N.W.b.W.	11	10 p.m. (25th).	W. by S.	54	—
			3 a.m. (26th).	W. by S.	49	2							
	11 a.m. (26th).	N.W.b.W.	—	—	—	—	3 p.m. (26th).	N.W.b.W.	4	Noon (26th).	N.W.b.W.	37	—
Seaham	7 p.m. (25th).	W.S.W.	—	—	—	—	10 p.m. (25th).	S.W. by W.	3	9 p.m. (25th).	W. by S.	38	—
Stonyhurst.	5 a.m. (26th).	S.W. by W.	—	—	—	—	8 a.m. (26th).	W.	3	6 a.m. (26th).	W. by S.	38	—
	1 p.m. (26th).	W. by N.	—	—	—	—	4 p.m. (26th).	W. by N.	3	2 p.m. (26th).	W. by N.	33	—
Holyhead	3 a.m. (26th).	S.W. by W.	7 a.m. (26th).	N.W. by W.	42	2	10 p.m. (26th).	N.W.b.W.	19	7 a.m. (26th).	N.W.b.W.	43	—
Falmouth.	11 a.m. (26th).	N.W. by N.	—	—	—	—	2 p.m. (26th).	N.W. by N.	3	Noon (26th).	N.N.W.	35	—

No. 10. (Cyclonic System, No. XII.)

Feb. 27–28, 1880.													
Sandwick	8 p.m. (27th).	W.S.W.	9 p.m. (27th).	W.S.W.	50	14	Noon (28th).	W.	16	7 a.m. (28th).	W.N.W.	66	—
	2 p.m. (28th).	W.	—	—	—	—	5 p.m. (28th).	W.N.W.	3	3 p.m. (28th).	W.	39	—
	8 p.m. (28th).	W.	—	—	—	—	5 a.m. (29th).	W. by N.	9	2 a.m. (29th).	W. by N.	37	—
Aberdeen	5 a.m. (28th).	W. by N.	9 a.m. (28th).	W.N.W.	43	3	Noon (28th).	W.	7	10 a.m. (28th).	W. by N.	44	—
										11 a.m. (28th).	W.N.W.		

(Continued.)

No. 10. (Cyclonic System, No. XII).—*continued.*

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Feb. 27–28, 1880.													
Glasgow	7 p.m. (27th).	W.S.W.	—	—	—	—	10 p.m. (27th).	W.S.W.	3	9 p.m. (27th).	W.S.W.	34	—
Alnwick Castle.	6 p.m. (27th).	W.S.W.	7 p.m. (27th).	W.S.W.	45	7	9 a.m. (28th).	W.N.W.	15	10 p.m. (27th).	W. by S.	53	—
			4 a.m. (28th).	W.	40	1							
	11 a.m. (28th).	W.N.W.	—	—	—	—	1 p.m. (28th).	W.N.W.	2	Noon (28th).	W.N.W.	37	Velocity again rose to 40 miles during the night of 28th, and a max. of 54 miles was recorded at 3 p.m. 29th.
Stony-hurst.	1 a.m. (28th).	S.W.byW.	—	—	—	—	4 a.m. (28th).	W. by S.	3	3 a.m. (28th).	W.S.W.	34	
Holyhead	Midt. (27th).	S.W.	—	—	—	—	2 a.m. (28th).	S.W.	2	Midt. (27th).	S.W.	33	

No. 11. (Cyclonic System, No. XIII.)

Feb. 29–Mar. 3, 1880.													
Sandwick.	7 a.m. (1st).	S.S.W.	11 a.m. (1st).	S.W.	44	11	6 p.m. (2nd).	W. by N.	35	5 a.m. (2nd).	W.S.W.	59	—
			Midt. (1st).	S.W.byW.	47	13							
	9 a.m. (3rd).	W. by S.	11 a.m. (3rd).	W. by S.	47	4	7 p.m. (3rd).	W. by N.	10	Noon (3rd).	W. by S.	49	—
										1 p.m (3rd.)	W.		
Aberdeen.	10 a.m. (1st).	S.W. by S.	—	—	—	—	Noon (1st).	S.S.W.	2	11 a.m. (1st).	S.W. by S.	35	—
	1 p.m. (1st).	S.W. by S.	—	—	—	—	3 p.m. (1st).	S.W. by S.	2	2 p.m. (1st).	S.W. by S.	36	—
	4 p.m. (1st).	S.W.	—	—	—	—	7 p.m. (1st).	S.W. by S.	3	4 p.m. (1st).	S.W.	32	—
	8 p.m. (1st).	S.W.	—	—	—	—	10 p.m. (1st).	S.W.	2	8 p.m. (1st).	S.W.	32	—
Glasgow	Midt. (29th).	S.	3 a.m. (1st).	S.W.	41	1	3 p.m. (1st).	S.W.byW.	15	11 a.m. & Noon (1st).	S.W.	45	—
			6 a.m. (1st).	S.W.	40	1							
			11 a.m. (1st).	S.W.	45	2							
Alnwick Castle.	2 a.m. (1st).	S.S.W.	—	—	—	—	4 a.m. (1st).	S.W. by S.	2	2 a.m. (1st).	S.S.W.	39	—
	—	—	5 a.m. (1st).	S.W.	53	13	2 p.m. (2nd).	W.	33	7 a.m. (1st).	S.W.	61	—
			11 p.m. (1st).	W.S.W.	44	8							
			11 a.m. (2nd).	W. by S.	40	1							
	2 a.m. (3rd).	W.S.W.	—	—	—	—	7 a.m. (3rd).	W. by S.	5	3 a.m. (3rd).	W.S.W.	38	—
Seaham	6 a.m. (1st).	S.W. by S.	10 a.m. (1st).	S.W.byS.	40	1	5 p.m. (1st).	S.W. by S.	11	10 a.m. (1st).	S.W. by S.	40	—
Stony-hurst.	4 a.m. (1st).	S.W. by S.	1 p.m. (1st).	S.W.byW.	40	1	4 p.m. (1st).	S.W.byW.	12	1 p.m. (1st).	S.W.byW.	40	—
	Midt. (1st).	W.S.W.	—	—	—	—	4 a.m. (2nd).	W.S.W.	4	3 a.m. (2nd).	W. by S.	37	—
	5 a.m. (3rd).	S.W.	6 a.m. (3rd).	S.W.byW.	41	1	1 p.m. (3rd).	W.S.W.	8	6 a.m. (3rd).	S.W.byW.	41	—

(*Continued.*)

No. 11. (Cyclonic System, No. XIII.)—*continued.*

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity. Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Feb. 29–Mar. 3, 1880.													
Holyhead.	6 p.m. (29th).	S.S.W.	1 a.m. (1st).	S.S.W.	44	2	6 a.m. (2nd).	S.W.	36	9 p.m. (1st).	S.W.byW.	48	—
			4 a.m. (1st).	S.W.	42	10							
			5 p.m. (1st).	S.W.byW.	42	9							
			3 a.m. (2nd).	W.S.W.	40	1							
Armagh	9 p.m. (2nd).	S.W.	4 a.m. (3rd).	W.S.W.	44	5	10 a.m. (3rd).	W. by S.	13	7 a.m. (3rd).	W. by S.	46	—
	10 p.m. (29th).	S.S.W.	3 a.m. (1st).	S.S.W.	44	1	6 a.m. (1st).	W.S.W.	8	3 a.m. (1st).	S.S.W.	44	—
Valencia.	Noon (29th).	W.S.W.	6 p.m. (29th).	S.W.	44	9	Midt. (1st).	W. by S.	36	9 p.m. (29th).	S.W.	48	—
			10 a.m. (1st).	W.	42	2							
			3 p.m. (1st).	W.	41	6							
	—	—	2 a.m. (2nd).	S.W.byW.	48	13	2 a.m. (3rd).	W. by S.	24	11 a.m. (2nd).	S.W.byW.	55	—
			4 p.m. (2nd).	S.W.byW.	47	5							
			10 p.m. (2nd).	W.S.W.	43	2							
	4 p.m. (3rd).	S.W.byW.	—	—	—	—	8 p.m. (3rd).	W.	4	6 p.m. (3rd).	W. by S.	33	—
Falmouth.	9 p.m. (29th).	S.W.	—	—	—	—	5 a.m. (1st).	W. by S.	8	4 a.m. (1st).	S.W.byW.	36	—
	11 a.m. (1st).	W. by S.	—	—	—	—	3 p.m. (1st).	W.S.W.	4	1 p.m. (1st).	W.S.W.	36	—
	3 a.m. (2nd).	W.S.W.	6 a.m. (2nd).	S.W.byW.	47	22	5 a.m. (3rd).	W.	26	11 a.m. (2nd).	S.W.byW.	56	—
	6 p.m. (3rd).	S.W.byW.	—	—	—	—	Midt. (3rd).	W. by S.	6	8 p.m. (3rd).	W.S.W.	37	—
Kew	4 a.m. (1st).	S.W. by S.	—	—	—	—	8 a.m. (1st).	S.W.	4	5&6a.m. (1st).	S.W. by S.	32	—
	8 a.m. (2nd).	S.W. by S.	1 p.m. (2nd).	S.W.	41	1	4 a.m. (3rd).	S.W.byW.	20	1 p.m. (2nd).	S.W.	41	—
Yarmouth.	11 a.m. (1st).	W.S.W.	—	—	—	—	3 p.m. (1st).	W. by S.	4	Noon & 1 p.m. (1st).	W. by S.	33	—
	11 a.m. (2nd).	S.W.	—	—	—	—	Midt. (2nd).	W.S.W.	13	1 p.m. (2nd).	W.S.W.	39	—
	3 a.m. (3rd).	S.W.byW.	Noon (3rd).	W. by N.	42	1	3 p.m. (3rd).	W. by N.	12	Noon (3rd).	W. by N.	42	—

No. 12. (Cyclonic System, No. XIV.)

Mar. 30–31, 1880.													
Sandwick	11 a.m. (30th).	S.E. by S.	11 p.m. (30th).	S.S.E.	48	17	8 p.m. (31st).	S.S.E.	33	9 a.m. (31st).	S.E. by S.	57	—
Aberdeen	6 a.m. (31st).	S.S.E.	—	—	—	—	3 p.m. (31st).	S.S.E.	9	10 a.m. (31st).	S.S.E.	36	—
Holyhead	Midt. (30th).	S.	4 a.m. (31st).	S. by E.	44	6	Noon (31st).	W.S.W.	12	6 a.m. (31st).	S.	47	—
Valencia	1 p.m. (30th).	S. by E.	8 p.m. (30th).	S.	45	6	3 a.m. (31st).	W.	14	1 a.m. (31st).	S. by W.	56	—
Falmouth	7 a.m. (31st)	S. by W.	—	—	—	—	1 p.m. (31st).	S.W.	6	9 a.m. (31st).	S. by W.	36	—
										11 a.m. (31st).	S.S.W.		

TABLE OF ANTICYCLONIC SYSTEMS.—JANUARY—MARCH 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. I. January 1–15.	No. II. January 18–February 5.	No. III. February 23–26.	No. IV. March 4–31.
Form	Irregular	Varying and irregular	Irregular	Irregular.
Size	Large	Large	Large	Large.
Height	Moderate. Max. readings 30·78 inches on the 11th.	Moderate. Max. readings 30·67 inches on the 21st.	Small. Max. readings 30·55 inches on the 25th.	Moderate. Max. readings 30·98 inches on the 12th.
Where first observed	Over the Peninsula	Over Norway	Bay of Biscay	Over the Peninsula.
Direction of Motion	North-north-easterly, then south-westerly.	Southerly, then westerly, and finally easterly.	North-eastwards, then westward.	Very irregular.
Rate of Motion	Very slow	Very slow	Slow	Variable.
Regions passed over	The greater part of western Europe.	The greater part of western and central Europe.	Great Britain, France, and Germany.	The whole of western, central, and northern Europe.
Termination	Became dispersed to the westward of the Bay of Biscay.	Disappeared over south-eastern Europe.	Passed away to the westward of Great Britain.	Became dispersed over eastern Europe.
Accompanying Wind	Generally light, and over the greater part of the kingdom variable in direction.	First Easterly, then light and variable, and then Southerly and South-westerly, freshening.	Northerly, then variable, then Westerly.	Winds from between East and South predominated, generally light to moderate in force; calms were frequent.
„ Weather	Dry; but dull and gloomy over England during most of the interval, and to a less extent over Ireland and Scotland also.	Generally dry and fine, but very foggy in south-eastern England, and occasionally wet and squally in Ireland; unsettled weather spread over the British Isles towards the close of the period.	Unsettled. Squally and showery, especially in the north and west.	Generally very dry, fine, and bright; the little rain which fell was principally in the extreme west and north.
REMARKS	This system extended itself northwards from the Peninsula over the whole of western Europe, the highest readings being attained on the 11th, over the Netherlands. On the 12th it began to decrease in height, and the *locale* of the highest readings became transferred to the south-westward of our Islands, in which region the system apparently became dispersed.	This system followed closely upon its immediate predecessor, but reached us from the north instead of from the south as did the former. On the 22nd, a small depression appeared over the Baltic, and caused the centre of the anticyclone to move for a little while to the westward over Ireland, but it soon returned to the Continent again, and continuing to move eastwards, passed across Germany and Austria to Turkey, where it passed beyond the limits of our observations.	This anticyclone made its appearance somewhat suddenly, and speedily extended itself across the British Isles and the North Sea, to the southern portion of Scandinavia and the Baltic Provinces, forming a long band of high pressure over the entire region. It was, however, very short-lived, and upon the arrival of depression No. XII., on the Norwegian coast, it shifted to the westward and became dispersed.	The form, position, and intensity of this system of high pressure varied very much during the 28 days of its existence. The centre which was first observed over the Peninsula was probably joined on the night of the 7th by another, which came from the north of Europe, the two forming the large system which subsequently extended for some days over the greater part of the Continent. Sufficient data are not available, however, for tracing the exact way in which the movements of this large system took place.

NOTES TO ACCOMPANY THE ANTICYCLONIC TABLES.

February 6th–22nd.—During the first few days of this interval the highest pressures were found over eastern Europe. An area of relatively high readings was observed temporarily over Spain and the Mediterranean on the 12th and 13th, but on the 14th this had disappeared, and another area of high pressure had appeared over northern Europe, from whence it moved southwards over eastern Europe, and then extended itself to the westward over the Mediterranean.

SECTION III.

REMARKS FOR JANUARY 1880.

(Tables A. to C., with Monthly Wind and Weather Charts.)

Wind.—During the first three days of the month the wind all over the kingdom was fresh or strong from the Westward; it then backed, and for some days light anticyclonic Southerly airs and calms succeeded, the wind at some of the southern stations gradually backing still further to South-east and East. At the close of the 13th, the direction became generally Northerly, the force, however, continuing moderate, till on the 15th it backed once more to the Westward over the greater part of the kingdom. A few hours later an Easterly current appeared in the extreme north of Scotland and gradually spread itself southwards, after which the direction became somewhat variable for a little while, till on the 18th a moderate to fresh Easterly wind had again become general. Another spell of anticyclonic winds now ensued, the direction, speaking generally, being Easterly in the south and south-west, Southerly in the west, Easterly in the north, and Northerly on our eastern coasts. On the 24th the Southerly current in the west began to freshen and spread itself over Great Britain, and two days later it veered at the northern and north-western stations to South-west, from which quarter it blew strongly in those districts during the remainder of the month, while over the south-east of England light airs and calms prevailed.

The accompanying wind chart shows that dealing generally with the whole month Easterly winds predominated in the south-west, and Southerly and South-westerly winds over the western and northern portions of the United Kingdom.

Pressure.—Owing to the predominance of anticyclonic conditions, the mean pressure for the month was very high, the values ranging from about 30·4 inches over the south-east of England to a little less than 30·1 inches in the extreme north of the kingdom, on the whole about four-tenths of an inch above the average. The range of pressure was least in the south-west of England and greatest at the northern stations, amounting to 1·4 inches at Aberdeen. The highest reading recorded was 30·709 inches at Armagh on the 21st, on which day most of the observatories recorded the maximum, the exceptions being Kew and Aberdeen, which had slightly higher readings on the 7th and 12th respectively. All the observatories recorded their lowest readings quite at the beginning of the month, except Falmouth, where the minimum was not reached till the 18th, and Valencia, where it was recorded on the 30th. The lowest reading was 29·241 inches at Aberdeen.

Movements of the Depressions.—Anticyclonic conditions prevailed over the United Kingdom during the greater part of the month, and only a few depressions came within the area of our observations. These were observed quite at the beginning, and again at the close of the month, and they all moved along tracks which lay beyond our northern coasts, and apparently in a northerly or north-easterly direction.

Temperature.—The mean temperature of the month was nearly normal over Scotland, a little below the average over Ireland, and considerably so over the greater part of England, the defect over some of the southern counties amounting to about 5°. The range of temperature was generally large; at many stations it exceeded 40°, and it amounted to between 30° and 40° over the greater part of the kingdom; the greatest range observed was 45° at Marlborough, and the least 19° at Scilly. The maximum readings were in some instances very high for January,—at Cambridge 59° was reached, and at some other stations nearly as high as a point, but in nearly every case the maximum was recorded on the 1st, while in the few exceptions to this rule, it was not recorded till the 31st. The minima were generally

recorded near the middle of the month; at Hawes Junction the mercury fell to 5°, and at Marlborough to 9°, while at the majority of the stations, the lowest readings varied between 10° and 20°.

Vapour Tension.—The tension of vapour was greatest over Ireland and the whole of the western coasts of the kingdom, and least over the eastern half. *Relative Humidity*, on the other hand, was greater over the English midlands and south-eastern districts than it was at the more western stations.

Rainfall.—The month was an unusually dry one, and the fall of rain was everywhere much less than the average, the deficiency being especially marked over south-eastern England. There were only a few exceptionally heavy daily falls, and most of these occurred on the 29th, when Valencia measured 1·45 inches, Laudale 2·74 inches, Rothsay 1·05 inches, and Ardrossan 0·97 inch.

TABLE A.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of JANUARY 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).							TEMPERATURE in the Shade (In Degrees Fahrenheit).							HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.					Range.	Mean for the Month.	Extremes.				Range.		Tension of Vapour (In English Inches).	Relative Humidity (Saturation=100).	
		Minimum.		Maximum.					Minimum.		Maximum.						
		Reading.	Date.	Reading.	Date.				Reading.	Date.	Reading.	Date.					
	ins.	ins.	D. H.	ins.	D. H.		ins.	°	°	D. H.	°	D. H.		°	in.	%	ins.
Valencia - -	30·237	29·586	30th, 4 a.m.	30·559	21st, Noon		0·973	44·3*	31·0	22nd, 9 a.m.	54·6	1st, 3 a.m.		23·6	·243	83	4·253
Armagh - -	·279	·479	1st, 9 p.m.	·709	21st, 10 a.m.		1·230	39·0	18·0	22nd, 2 a.m. } 3 a.m. }	54·0	1st, 1 p.m.		36·0	·203	86	1·250
Glasgow - -	·242	·303	1st, 1 a.m	·652	21st, 10 a.m.		1·349	38·0	23·6	21st, 7 a.m. } 9 a.m. }	53·9	1st, 7 p.m.		30·3	·201	88	1·966
Aberdeen - -	·203*	·241	1st, 11 p.m.	·653	12th, 10 a.m.		1·412	38·1	26·6	10th, 5 a.m.	54·3	1st, 9 p.m.		27·7	·191	83	0·730
Falmouth - -	·353	·964	18th, 6 a.m. } 7 a.m. }	·627	21st, 11 a.m.		0·663	41·2	31·3	18th, 7 a.m.	52·5	1st, 1 p.m.		21·2	·212	82	0·985
Stonyhurst - -	·342	·542	1st, 1 a.m.	·672	21st, 10 a.m. } 11 a.m. }		1·130	34·8	19·3	20th, 7 a.m.	52·0	31st, 2 p.m.		32·7	·168	83	0·839
Kew - -	30·387*	29·798	1st, 1 a.m.	30·687	7th, 10 a.m.		0·889	33·2	18·9	27th, 10 p.m. } 28th, 0.20 a.m. }	55·0	1st, 1 p.m.		36·1	·165	87	0·440

* Mean for one day is approximate.

TABLE B., JANUARY.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
			Means of						Absolute Extremes.			
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	30·103	40·6	40·3	40·5	37·3	44·6	41·0	31·8	16th	53·1	1st
	Dunrobin Castle S	30·162	38·2	38·5	38·4	34·2	43·9	39·1	27·1	12th	54·5	1st
1. SCOTLAND, E.	Braemar S	30·207	32·7	33·9	33·3	29·1	40·7	34·9	11·3	19th	52·5	1st
	Dundee S	30·231	36·5	36·8	36·7	33·1	40·5	36·8	22·2	19th	54·4	1st, 2nd
	Glenalmond	30·247	35·8	36·6	36·2	31·3	41·1	36·2	18·1	19th	52·0	1st
2. ENGLAND, N.E.	Seaham	30·294	36·5	36·2	36·4	31·7	40·7	36·2	22·8	27th	53·7	1st
	Durham*	30·305	35·1	33·8	34·5	29·4	39·6	34·5	17·3	19th	54·2	1st
	York	30·343	33·9	34·9	34·4	30·3	39·8	35·1	20·0	20th	57·0	2nd
	Hull	30·359	34·7	35·2	35·0	32·0	40·2	36·1	23·7	29th	52·4	1st
	Kelstern M	30·368	31·8	32·4	32·1	29·0	37·6	33·3	16·9	29th	54·3	1st
3. ENGLAND, E.	Hillington M	30·368	32·4	32·4	32·4	28·4	38·3	33·4	17·9	27th	54·9	1st
	Geldeston	30·377	33·1	33·9	33·5	29·9	39·8	34·9	18·1	28th	56·3	1st
	Chigwell Row	30·415	32·7	33·3	33·0	29·6	39·0	34·3	19·4	27th	54·0	1st
4. MIDLAND COUNTIES.	Wakefield M	30·355	34·6	35·4	35·0	31·2	41·6	36·4	15·9	28th	57·6	31st
	Buxton M	—	30·9	32·0	31·5	25·5	39·5	32·5	12·1	28th	51·7	3rd
	Cheadle M	30·374	31·5	32·8	32·2	28·9	38·0	33·5	15·6	29th	51·3	1st
	Leicester	30·365	33·2	34·6	33·9	30·6	39·6	35·1	17·0	29th	54·8	1st
	Uppingham	30·377	31·9	32·6	32·3	29·0	37·7	33·4	16·6	29th	53·8	1st
	Oscott	30·375	31·9	33·4	32·7	29·7	38·8	34·3	17·9	29th	53·0	1st
	Churchstoke M	30·393	32·4	33·4	32·9	28·3	40·1	34·2	13·2	20th	56·9	31st
	Cheltenham M	30·394	32·5	33·1	32·8	27·9	38·0	33·0	10·0	20th	53·0	1st
5. ENGLAND, S.	Marlborough M	30·392	30·3	31·0	30·7	27·3	38·5	32·9	8·6	28th	53·5	1st
	Strathfield Turgiss M	30·399	31·4	31·1	31·3	26·0	38·0	32·0	13·3	26th	54·0	31st
	Ramsgate M	30·399	33·9	34·2	34·1	29·7	39·2	34·5	21·0	28th	54·3	1st
	Folkestone	30·398	33·8	34·1	34·0	29·7	39·2	34·5	20·3	20th	55·2	31st
	Southampton	30·392	32·4	33·1	32·8	29·2	38·4	33·8	18·0	21st	52·8	1st
	St. Leonards	30·393	34·4	34·8	34·6	31·5	39·0	35·3	23·6	20th	49·9	1st
6. SCOTLAND, W.	Laudale	30·203	—	—	—	—	—	—	—	—	—	—
	Rothesay S	30·251	38·9	38·8	38·9	35·2	42·9	39·1	25·2	20th	55·0	1st
	Pinmore S	—	—	—	—	—	—	—	—	—	—	—
7. ENGLAND, N.W.	Scaleby M	30·288	33·7	34·7	34·2	30·6	39·1	34·9	16·0	20th	54·0	1st
	Douglas (Isle of Man)	30·303	39·2	39·2	39·2	35·4	42·7	39·1	23·0	21st	53·1	1st
	Llandudno M	30·329	38·2	38·9	38·6	35·4	43·5	39·5	24·2	21st	56·0	31st
8. ENGLAND, S.W.	St. David's	30·343	38·6	38·5	38·6	34·9	42·0	38·5	23·3	20th	51·5	1st
	Caermarthen M	30·362	35·0	34·9	35·0	30·0	41·2	35·6	15·7	22nd	54·5	1st
	Dartmoor M	30·374	32·6	31·9	32·3	27·7	36·5	32·1	15·5	27th	50·0	31st
	Babbacombe M	30·375	36·5	36·8	36·7	33·0	41·7	37·4	21·9	28th	54·0	31st
9. IRELAND, N.	Londonderry	30·246	38·4	39·3	38·9	34·8	42·9	38·9	18·6	21st	55·0	1st
	Brookeborough	30·235	37·1	38·4	37·8	33·8	42·8	38·3	12·8	22nd	53·9	1st
	Markree Castle	30·243	37·3	38·3	37·8	34·0	43·8	38·9	17·0	22nd	55·4	1st
10. IRELAND, S.	Dublin	30·307	38·7	39·6	39·2	36·0	43·3	39·7	20·1	22nd	56·6	1st
	Parsonstown	30·293	37·6	38·0	37·8	34·1	43·8	39·0	19·0	22nd	56·5	1st
CHANNEL	Jersey (St. Aubin's)	30·398	36·7	37·0	36·9	33·0	41·1	37·1	24·7	20th	51·1	3rd

NOTE.—The stations marked M are in connection with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of JANUARY 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER, No. of Days of							WIND, No. of Observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·223	·225	·224	89	91	90	7·3	6·8	7·1	2·400	·300	1st	19	1	2	0	4	16	3	3	3	1	0	17	9	14	6	9
·211	·214	·213	91	90	91	—	—	—	2·070	·860	15th	12	3	0	0	—	—	1	4	3	0	3	3	13	24	12	0
·174	·182	·178	90	91	91	6·4	6·2	6·3	1·060	·230	2nd	9	2	0	0	2	7	4	4	3	1	4	4	26	11	9	0
·194	·194	·194	88	86	87	9·3	7·5	8·4	0·900	·450	2nd	6	5	0	0	0	21	6	1	5	1	0	0	18	25	11	1
·190	·190	·190	87	84	85	7·8	6·8	7·3	2·493	·772	2nd	12	4	0	0	3	16	0	2	2	2	1	4	21	11	4	15
·191	·187	·189	89	88	89	6·4	5·4	5·9	0·547	·332	16th	6	5	0	0	3	8	0	1	1	1	1	13	11	15	4	15
·184	·179	·182	88	90	89	7·3	6·2	6·8	0·531	·240	16th	5	3	0	0	3	14	0	0	1	0	3	29	13	4	9	3
·179	·185	·182	91	91	91	6·8	6·7	6·8	0·290	·140	15th	7	2	0	0	4	15	0	10	2	1	3	23	8	10	4	1
·184	·190	·187	92	92	92	7·0	7·3	7·2	0·200	·080	1st	6	0	0	0	2	15	0	4	0	1	5	2	17	16	12	5
·167	·172	·170	91	92	92	6·7	6·3	6·5	0·174	·050	22nd	8	4	0	0	6	16	1	6	1	5	9	9	16	7	8	1
·169	·176	·173	89	94	92	7·9	7·8	7·9	0·236	·045	22nd	11	7	0	0	2	21	1	4	1	2	14	7	18	5	11	0
·173	·178	·176	89	90	89	7·5	6·1	6·8	0·170	·040	22nd	7	4	2	0	5	17	0	3	4	10	5	3	9	15	5	8
·179	·182	·181	96	96	96	8·0	7·1	7·6	0·280	·150	16th	3	3	0	0	4	18	0	8	6	14	9	3	2	7	4	9
·195	·199	·197	93	93	93	7·6	6·8	7·2	0·230	·140	15th	4	1	0	0	2	15	0	4	1	6	9	7	14	14	7	0
·164	·171	·168	93	93	93	7·3	5·8	6·6	1·280	·325	16th	9	3	0	0	4	13	0	5	4	8	0	0	2	30	12	1
·155	·165	·160	88	89	89	6·8	6·3	6·6	0·440	·200	15th	4	2	0	0	6	17	3	7	2	7	5	11	3	6	4	17
·167	·177	·172	88	88	88	9·1	6·7	7·9	0·350	·210	16th	6	2	0	0	3	21	0	2	3	1	10	6	30	2	6	2
·166	·169	·168	90	89	89	7·4	5·8	6·6	0·336	·135	16th	6	6	0	0	7	17	1	5	0	1	9	9	18	3	9	8
·166	·173	·170	89	87	88	8·7	6·7	7·7	0·410	·220	16th	5	9	0	0	3	20	2	8	5	7	3	17	6	7	4	5
·163	·173	·168	83	86	85	7·3	7·3	7·3	0·172	·100	1st	6	2	0	0	0	15	0	1	7	10	12	10	8	9	5	0
·169	·175	·172	89	89	89	7·7	5·6	6·7	0·960	·530	16th	5	4	0	0	4	15	0	0	3	6	12	9	0	3	2	27
·163	·164	·164	93	92	92	7·8	6·3	7·1	0·510	·200	13th	8	5	1	0	4	18	0	2	0	4	0	1	4	4	0	47
·157	·154	·156	84	85	85	7·5	6·6	7·1	0·568	·300	16th	4	1	0	0	4	19	0	5	15	10	11	3	3	4	4	7
·179	·182	·181	90	91	90	7·7	5·5	6·6	0·220	·080	22nd	4	1	2	0	4	13	0	3	1	11	1	2	9	4	4	27
·180	·177	·179	91	89	90	6·7	5·5	6·1	0·227	·068	22nd	9	5	0	0	6	15	0	11	4	20	5	7	1	6	7	1
·174	·172	·173	92	89	90	7·2	5·5	6·4	0·826	·666	13th	6	4	0	0	6	15	0	4	20	5	14	1	4	7	4	3
·182	·178	·180	89	86	88	6·5	5·5	6·0	0·418	·153	16th	10	2	0	0	8	15	0	9	8	14	9	2	2	7	6	5
—	—	—	—	—	—	7·5	7·1	7·3	9·020	2·740	29th	16	6	0	1	3	19	6	0	0	6	9	22	14	0	0	11
·215	·214	·215	88	87	88	—	—	—	2·690	1·055	29th	15	2	0	0	—	—	1	1	3	7	3	16	13	8	7	4
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·187	·192	·190	93	92	92	7·5	6·5	7·0	1·030	·420	30th	11	4	0	0	2	13	4	1	4	6	2	5	22	1	0	21
·226	·229	·228	92	93	93	8·2	7·6	7·9	0·825	·261	16th	11	0	1	0	1	19	2	3	1	7	7	11	11	8	2	12
·190	·200	·195	80	82	81	5·3	6·3	5·8	0·704	·293	15th	4	0	1	0	7	13	1	2	3	2	8	15	8	22	2	0
·212	·212	·212	88	88	88	8·2	6·8	7·5	0·829	·441	16th	9	0	1	0	1	17	2	1	11	13	15	7	7	3	5	0
·190	·196	·193	90	94	92	6·2	5·5	5·9	0·840	·290	1st	8	0	0	0	8	14	1	6	3	14	8	5	2	6	0	18
—	—	—	—	—	—	8·0	7·0	7·5	2·550	1·250	1st	8	2	0	0	5	21	0	2	6	18	10	3	7	5	0	11
·195	·191	·193	88	85	87	8·0	7·3	7·7	1·170	·650	12th	8	4	0	0	5	21	2	9	9	18	6	5	6	6	2	1
·213	·217	·215	88	87	87	7·3	7·5	7·4	2·420	·870	29th	15	0	0	0	2	17	0	0	3	5	5	16	22	4	1	6
·201	·210	·206	91	91	91	8·4	8·7	8·6	1·865	·525	15th	9	1	0	0	2	23	3	1	6	4	11	10	10	1	1	18
·207	·209	·208	89	88	88	8·0	8·1	8·1	1·216	·243	17th	11	1	0	0	2	21	0	1	2	2	15	15	8	3	1	15
·204	·210	·207	84	84	84	6·6	5·6	6·1	0·563	·155	16th	8	3	0	0	5	10	1	0	1	2	10	12	13	11	5	8
·206	·210	·208	88	89	88	7·3	6·9	7·1	0·984	·377	28th	9	0	0	0	5	18	1	0	1	2	24	13	8	1	1	12
·186	·185	·186	83	82	83	6·8	5·8	6·3	1·041	·650	17th	9	0	0	0	7	16	0	4	9	24	13	1	1	6	1	3

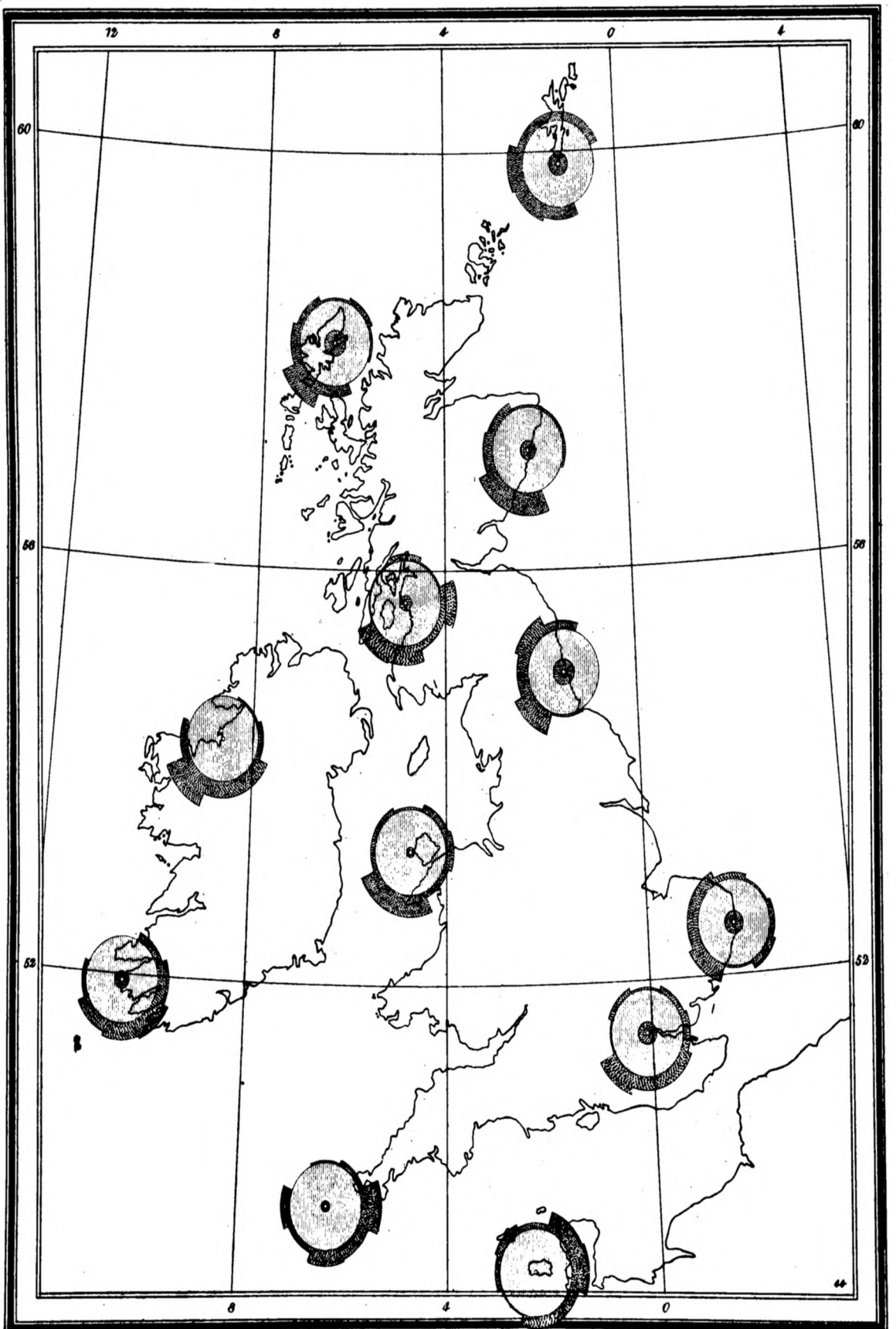
TABLE C.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS during the Month of JANUARY 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL.			WEATHER, No. of Days of							WIND, No. of Observations of								
			At 8 a.m.	Means of Minima.	Means of Maxima.	Means of Min. and Max. combined.	Absolute Extremes. Minimum.	Absolute Extremes. Minimum. Date.	Absolute Extremes. Maximum.	Absolute Extremes. Maximum. Date.				Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND, N.	Sumburgh Head	30·072	41·0	36·4	44·1	40·3	30	15th, 16th	51	1st	0·217	85	8·0	2·18	0·60	2nd	23	2	0	1	4	20	5	3	3	0	0	5	6	7	3	4
	Wick	30·118	38·4	33·2	42·5	37·9	24	13th	52	1st	·206	89	6·7	1·35	0·34	15th	16	2	0	0	6	13	1	0	2	0	0	5	10	4	6	4
	Stornoway	30·086	41·1	36·8	44·5	40·7	29	19th	53	1st	·241	93	7·9	3·05	0·50	27th	17	0	1	0	3	17	10	1	2	1	0	4	11	4	2	6
1. SCOTLAND, E.	Nairn	30·184	37·5	33·7	42·1	37·9	24	13th, 20th	55	1st	·195	87	5·5	1·33	0·26	15th	14	4	0	0	9	9	1	0	0	0	1	0	9	6	3	12
	Aberdeen	30·188	37·3	34·1	42·0	38·1	26	13th, 20th	56	1st	·192	87	6·2	0·68	0·47	15th	9	5	0	0	8	12	5	1	1	1	0	9	9	4	3	3
	Leith	30·234	37·4	33·3	42·4	37·9	24	19th, 20th, 26th.	57	1st	·198	89	5·9	0·51	0·15	15th	9	2	0	0	6	9	0	0	0	1	0	1	13	11	2	3
2. ENGLAND, N.E.	Shields	30·297	35·4	32·1	41·2	36·7	23	20th	58	1st	·184	89	6·8	0·41	0·18	16th	7	5	0	0	4	13	2	3	0	0	0	1	9	5	7	6
	York	30·337	33·7	30·1	39·5	34·8	20	20th	55	1st	·178	91	6·3	0·29	0·14	15th	7	1	0	0	9	14	0	5	1	0	3	11	4	4	2	1
	Spurn Head	30·316	34·9	31·7	39·5	35·6	22	29th	53	1st	·179	88	5·9	0·15	0·07	1st	5	0	2	0	4	4	0	1	0	1	3	8	5	5	7	1
3. ENGLAND, E.	Yarmouth	30·356	33·9	30·2	37·8	34·0	17	29th	54	1st	·173	88	7·4	0·13	0·05	22nd	6	4	0	0	4	16	1	2	1	2	3	1	7	5	5	5
	Cambridge	30·372	31·2	28·0	39·8	33·9	16	28th	59	1st	·158	91	7·5	0·25	0·08	16th	8	3	0	0	7	22	0	5	0	1	5	7	5	4	4	0
4. MIDLAND COUNTIES.	Nottingham	30·374	32·1	28·8	38·7	33·8	13	20th	56	1st	·159	87	8·2	0·40	0·14	15th	6	4	0	0	5	23	0	3	0	3	3	5	7	1	1	8
	Oxford	30·377	30·6	27·9	37·5	32·7	16	21st, 27th	53	1st	·159	93	7·4	0·50	0·28	16th	9	2	1	0	7	21	0	1	2	4	0	2	3	4	0	15
5. ENGLAND, S.	London	30·376	31·5	28·4	39·3	33·9	16	28th	56	1st	·154	87	8·1	0·37	0·24	16th	6	4	0	0	4	22	1	1	2	3	5	5	8	1	2	4
	Dover	30·375	34·3	31·6	38·5	35·1	24	28th, 29th	49	1st	·174	87	5·3	0·32	0·08	22nd	9	3	0	0	11	8	1	7	3	4	7	1	4	3	1	1
	Hurst Castle	30·352	34·6	31·9	39·6	35·8	21	20th	47	1st, 2nd, 31st.	·190	94	6·7	0·88	0·49	13th	8	2	0	0	9	19	0	4	6	8	6	2	2	1	2	0
6. SCOTLAND, W.	Ardrossan	30·241	38·7	35·5	42·9	39·2	24	20th	51	1st	·206	88	8·2	1·97	0·97	29th	13	2	0	0	3	21	7	2	1	7	2	7	8	1	1	2
7. ENGLAND, N.W.	*Hawes Junction	29·010	31·8	24·8	35·5	30·2	5	1st	48	1st	·173	97	7·0	0·92	0·30	2nd	9	4	0	0	7	17	2	2	3	6	1	7	10	2	0	0
	Liverpool	30·326	34·7	32·0	40·0	36·0	20	27th, 28th	56	1st	·172	85	6·8	0·53	0·43	16th	4	0	0	0	7	13	1	2	2	4	12	3	4	2	2	0
	Holyhead	30·303	39·3	37·1	42·8	40·0	27	20th, 21st	52	1st	·213	89	6·4	0·74	0·25	16th	8	0	0	0	8	11	2	1	2	3	2	9	9	2	2	1
8. ENGLAND, S.W.	Pembroke	30·322	38·9	36·1	42·1	39·1	27	21st, 22nd, 26th, 27th.	51	1st	·213	91	7·8	0·69	0·30	16th	6	0	0	0	4	19	2	1	4	6	9	5	0	3	2	1
	Prawle Point	30·365	37·9	34·6	42·9	38·8	26	27th	53	31st	·204	90	7·0	1·02	0·49	12th	6	0	0	0	4	10	1	5	3	8	6	2	0	3	4	0
9. IRELAND, N.	Donaghadee	30·275	39·2	35·5	43·4	39·5	22	21st, 22nd	55	1st	·218	91	7·2	0·72	0·23	15th	11	0	0	0	5	17	4	1	1	1	2	8	8	8	2	0
	Mullaghmore	30·201	40·8	36·7	45·2	41·0	23	22nd, 23rd, 24th.	56	1st, 2nd	·215	85	8·4	2·25	0·52	29th	12	0	1	1	3	20	10	0	1	2	6	6	13	3	0	0
10. IRELAND, S.	Valencia	30·231	43·6	40·4	48·2	44·3	29	22nd	55	1st, 2nd	·238	84	7·7	4·44	1·45	29th	15	0	0	0	4	18	8	0	3	5	7	6	5	2	0	3
	Roche's Point	30·270	42·4	39·5	46·5	43·0	31	14th, 18th, 23rd.	54	1st	·237	88	8·0	3·05	0·78	29th	13	0	0	0	2	19	8	3	2	2	5	10	5	4	0	0
CHANNEL ISLANDS	Scilly (St. Mary's)	30·312	44·2	41·4	46·6	44·0	35	20th	54	1st	·263	91	8·6	0·75	0·21	16th	11	0	0	0	0	20	11	1	2	10	5	6	2	4	0	1
	Jersey (Noirmont).	30·345	35·3	32·9	39·8	36·4	24	20th	52	31st	·185	90	6·5	1·07	0·67	17th	10	0	0	0	9	17	2	2	7	8	4	4	1	2	3	0

* Hawes Junction is 1,135 feet above mean sea level, and the barometric observations at this station are not corrected for altitude.

Monthly Wind Chart for January 1880.

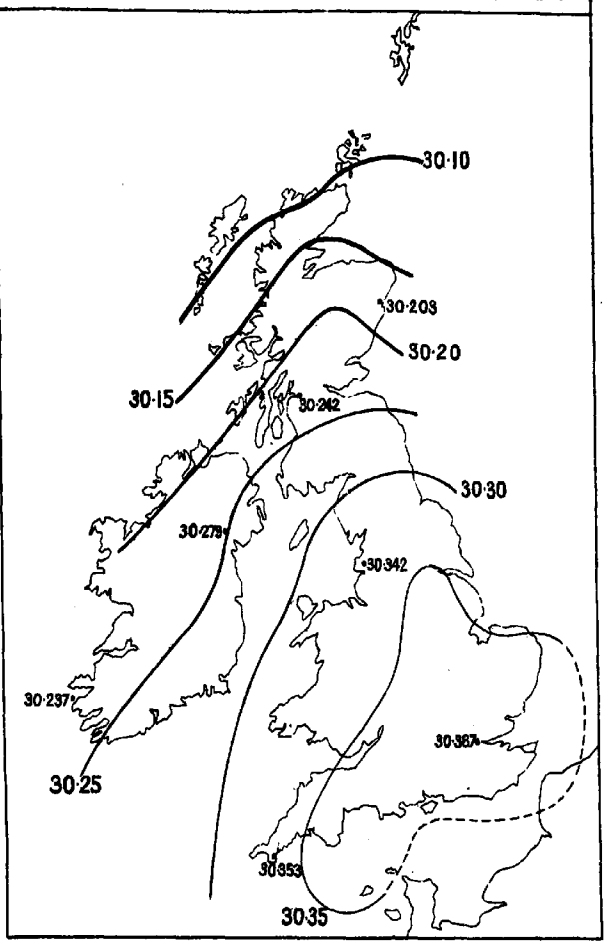


To face p 28.

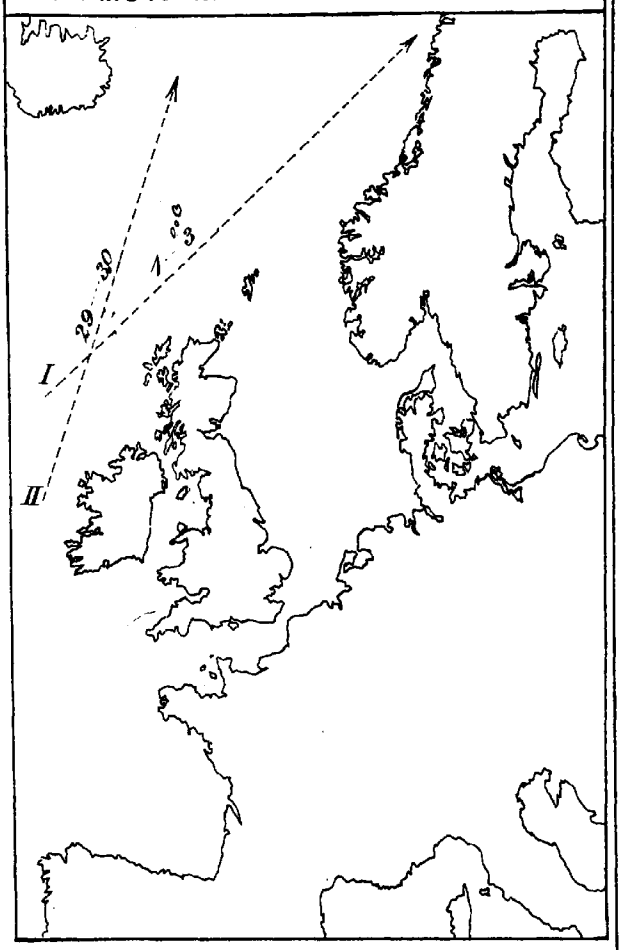
Judds & Co Ltd Lith 73 & 75, Farringdon Rd & Doctors Commons

MONTHLY WEATHER CHART. JANUARY 1880.

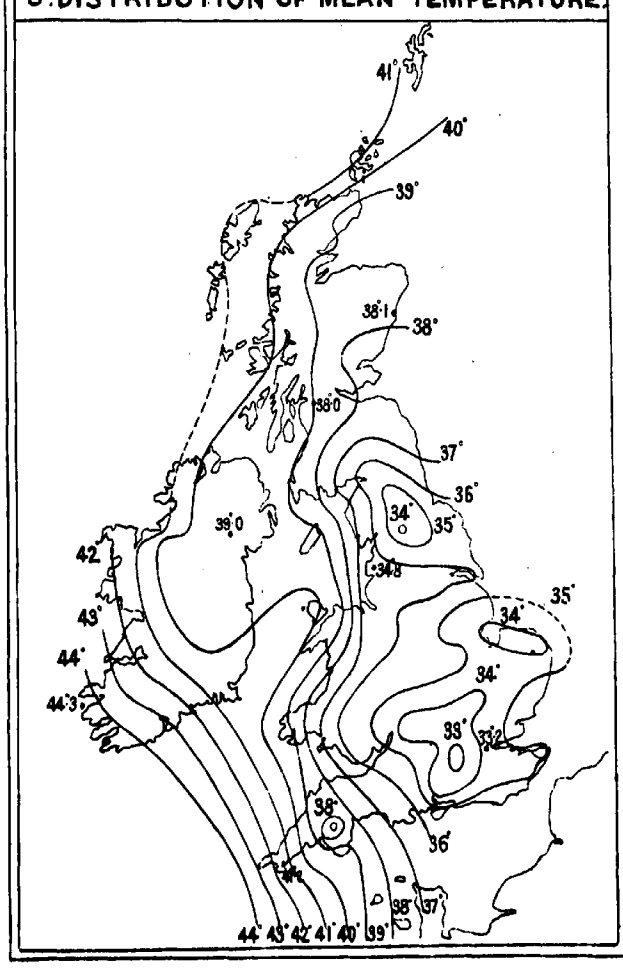
1. DISTRIBUTION OF MEAN PRESSURE.



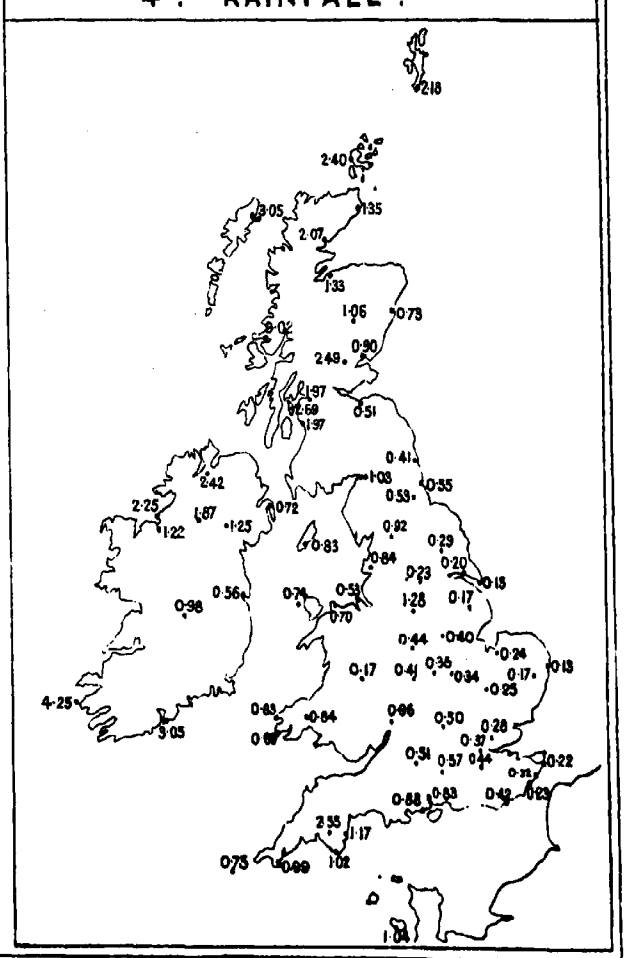
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



30.

To follow Wind Chart for January.

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Remarks for February 1880.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—A South-westerly wind which was light over south-eastern England but moderate to stong on our western coasts, prevailed during the first few days of the month, after which a temporary shift to West over the northern half of the kingdom on the 5th was followed on the 6th by a Southerly current which blew with moderate strength over eastern England, but increased to a gale at the western stations. During the next two days the direction varied between South-east and North-west, the force being generally moderate; but on the 9th there was a well-defined cyclonic wind circulation experienced, and strong Easterly winds were felt as well as equally strong South-westerly and Westerly winds. On the 10th, the winds were influenced by two depressions, and while Easterly winds blew over the southern half of the kingdom, a Westerly current was felt in the north of Scotland. This gave place on the 11th to another strong Southerly current which lasted for several days, the direction varying from South-east to South-west and West, with the passage of a series of depressions, and blowing at times a strong gale. On the 20th the direction became generally Westerly and the force soon decreased, after which it veered still further and a spell of light to moderate Northerly winds ensued till the 24th, when it again backed to West and freshened in force. Throughout the remainder of the month the direction varied between West and North-west, and the force was generally fresh or strong rising at times to a strong gale.

Upon the whole, therefore, the prevailing winds during the month were from between South and West, and the per-centage of winds from Easterly points was very small.

Pressure.—In contrast to the preceding month the mean pressure for February was considerably below the average, the values decreasing from a little above 29·8 inches over south-east England to 29·45 inches in the north of Scotland. The range of pressure was rather large in the west and south-west and exceeded 2 inches at Armagh, Valencia, and Falmouth; at Aberdeen it amounted to less than 1·5 inch. The minima were recorded at all the observatories, except Aberdeen, in connexion with the deep depression (No. IX.) which traversed Ireland on the 16th, while the maxima were registered a week later during the brief continuance of the anticyclonic conditions which then prevailed; the lowest reading recorded was 28·38 inches at Armagh, and the highest 30·56 inches at Valencia and Falmouth.

Movements of the Depressions.—Most of the depressions observed during the month pursued a northerly course past, or over, our western coasts; some of them however were deep disturbances which travelled in a more easterly direction across the kingdom, while towards the close of the month our northern coasts were affected by disturbances which were travelling to the eastward at some distance to the northward of Scotland. A large anticyclonic system was experienced during part of the latter half of the month, but it only lasted for a few days and disappeared to the westward of our Islands.

Temperature.—Temperature was a little above the average over the northern half of the kingdom but nearly normal both in amount and distribution elsewhere, the isotherms on the monthly chart showing that the mean temperature was very uniform over the whole kingdom. The range of temperature was less than it was in January and only in a few instances did it exceed 30°; as a rule it amounted to between 20° and 30°. Both the maximum and minimum readings occurred at somewhat irregular dates; of the former the highest recorded was 59° at Cambridge, but as a rule they did not exceed 55°, while the minima were rarely below 25°.

Vapour Tension.—The tension of vapour amounted to about ·22 inch over the greater part of England and Scotland, but was greater on the western coasts and over Ireland, and at Scilly amounted to as much as ·31 inch. *Relative Humidity* was on the whole rather greater over southern England than elsewhere.

Rainfall.—The fall of rain was rather above the average at the stations in the south and south-west and also in the extreme north, but was as a rule normal or rather below the average elsewhere. The heaviest daily falls occurred about the 16th, but it was only at a very few stations that amounts of an inch and upwards were measured.

TABLE A., FEBRUARY.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of FEBRUARY 1880, together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).						TEMPERATURE In the Shade (In Degrees Fahrenheit).						HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes. Minimum. Reading.	Minimum. Date.	Maximum. Reading.	Maximum. Date.	Range.	Mean for the Month.	Extremes. Minimum. Reading.	Minimum. Date.	Maximum. Reading.	Maximum. Date.	Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
	ins.	ins.	D. H.	ins.	D. H.	ins.	°	°	D. H.	°	D. H.	°	in.	%	ins.
Valencia - -	29·641	28·558	16th, 1 p.m.	30·564	25th, 1 a.m.	2·006	46·3	35·9	25th, 5 a.m.	53·0	18th, 2 p.m.	17·1	·265	85	6·835
Armagh - -	·613	·379	16th, 8 p.m.	·490	24th, Midt.	2·111	43·1	32·2	9th, 2 a.m.	53·2	4th, 2 p.m.	21·0	·239	85	2·625
Glasgow - -	·571	·534	16th, 8 p.m.	·347	24th, 10 p.m.	1·813	42·9	31·6	9th, 9 a.m.	52·3	4th, 3 p.m.	20·7	·232	85	2·869
Aberdeen -	·551	·788	20th, 1 a.m.	·265	24th, 10 a.m.	1·477	42·1	28·4	9th, 6 a.m.	53·3	29th, 4 p.m.	24·9	·219	82	2·665
Falmouth -	·795	·456	16th, 10 a.m.	·558	25th, 10 a.m.	2·102	46·2	34·5	25th, 5 a.m.	53·1	19th, 2 p.m.	18·6	·272	88	4·215
Stonyhurst -	·689	·599	16th, 4 p.m.	·443	24th, 10 p.m.	1·844	41·5	25·9	6th, 5 a.m.	50·9	19th, 2 p.m.	25·0	·227	87	3·645
Kew - -	29·813	28·826	17th, 7 a.m.	30·484	25th, 9 a.m.	1·658	41·9	25·0	2nd, 7 a.m.	53·2	20th, 3 p.m.	28·2	·232	88	2·220

TABLE B., FEBRUARY.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
						Means of			Absolute Extremes.			
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·450	41·7	41·6	41·7	38·5	45·7	42·1	32·0	9th	51·9	4th
	Dunrobin Castle S	29·498	41·5	41·6	41·6	36·8	47·2	42·0	29·0	9th	55·0	3rd
1. SCOTLAND, E.	Braemar S	29·529	37·2	37·9	37·6	34·7	43·3	39·0	19·2	9th	49·3	29th
	Dundee S	29·561	40·3	40·5	40·4	37·4	46·0	41·7	30·2	9th, 11th	53·7	29th
	Glenalmond	29·571	39·5	39·2	39·4	35·1	45·4	40·3	25·2	9th	51·3	29th
2. ENGLAND, N.E.	Seaham	29·634	42·2	41·8	42·0	37·2	48·1	42·7	29·3	9th	56·2	29th
	Durham*	29·638	42·4	40·5	41·5	35·1	47·7	41·4	26·3	6th	58·1	29th
	York	29·698	40·1	41·4	40·8	35·1	47·8	41·5	26·0	6th	55·0	19th
	Hull	29·723	41·0	40·9	41·0	36·9	46·7	41·8	32·0	6th, 27th	57·5	19th
	Kelstern M	29·741	39·0	38·9	39·0	34·8	46·1	40·5	30·0	9th	52·4	19th, 29th
3. ENGLAND, E.	Hillington M	29·765	40·6	40·0	40·3	35·2	47·8	41·5	28·0	25th	55·3	19th
	Geldeston	29·794	40·7	40·4	40·6	35·6	47·6	41·6	26·0	2nd	54·8	29th
	Chigwell Row	29·837	39·9	41·5	40·7	35·7	47·3	41·5	24·0	2nd	53·0	16th, 28th
4. MIDLAND COUNTIES.	Wakefield M	29·701	41·3	42·5	41·9	36·7	48·8	42·8	27·6	6th, 9th	56·6	1st
	Buxton M	—	37·6	39·5	38·6	31·5	45·9	38·7	25·7	9th	50·4	29th
	Cheadle M	29·735	38·8	40·2	39·5	35·4	45·6	40·5	30·2	5th, 13th	51·8	18th
	Leicester	29·744	40·8	42·1	41·5	37·1	47·6	42·4	25·9	1st	56·8	18th
	Uppingham	29·754	39·9	40·1	40·0	36·2	46·1	41·2	30·7	5th	52·8	19th
	Oscott	29·741	40·0	40·8	40·4	36·2	47·1	41·7	30·9	25th	54·4	20th
	Churchstoke M	29·750	41·2	41·1	41·2	35·4	47·8	41·6	26·7	25th	53·9	1st
	Cheltenham M	29·766	42·2	42·7	42·5	36·5	48·3	42·4	26·6	1st	54·0	19th
5. ENGLAND, S.	Marlborough M	29·806	39·8	40·7	40·3	36·1	48·1	42·1	27·3	1st	54·2	20th
	Strathfield Turgiss M	29·816	41·1	40·7	40·9	35·2	49·1	42·2	21·6	1st	55·1	18th
	Ramsgate M	29·851	41·1	40·9	41·0	37·1	47·8	42·5	29·5	5th	53·6	21st
	Folkestone	29·848	40·6	40·8	40·7	36·7	46·4	41·6	27·6	5th	52·0	28th
	Southampton	29·820	40·7	42·4	41·6	37·3	47·9	42·6	25·9	1st	52·8	16th
	St. Leonards	29·852	40·9	41·4	41·2	38·2	45·7	42·0	31·4	2nd, 5th	51·9	28th
6. SCOTLAND, W.	Laudale	29·509	42·8	43·5	43·2	37·9	46·8	42·4	31·0	9th	50·8	4th
	Rothesay S	29·584	42·0	42·0	42·0	38·2	47·1	42·7	30·2	9th	50·4	1st, 22nd
	Pinmore S	—	—	—	—	—	—	—	—	—	—	—
7. ENGLAND, N.W.	Scaleby M	29·623	41·0	41·8	41·4	37·0	46·6	41·8	30·3	6th	53·0	4th
	Douglas (Isle of Man)	29·632	43·2	42·3	42·8	38·2	47·1	42·7	29·8	15th	50·1	28th
	Llandudno M	29·677	44·8	44·4	44·6	40·4	49·7	45·1	32·0	6th	55·2	2nd
8. ENGLAND, S.W.	St. David's	29·710	44·4	44·0	44·2	40·8	47·3	44·1	33·3	24th, 25th	50·0	20th
	Caermarthen M	29·733	43·7	42·7	43·2	38·4	49·4	43·9	27·5	25th	53·3	28th
	Dartmoor M	29·791	40·0	39·6	39·8	35·6	44·0	39·8	29·0	25th	51·0	1st
	Babbacombe M	29·803	44·0	43·3	43·7	39·4	50·1	44·8	31·0	1st	54·8	18th
9. IRELAND, N.	Londonderry	29·572	42·2	42·7	42·5	37·7	48·3	43·0	28·5	15th	54·4	4th
	Brookeborough	29·565	40·5	41·5	41·0	36·4	48·3	42·4	27·3	11th	54·4	4th
	Markree Castle	29·576	41·7	42·1	41·9	36·8	48·6	42·7	27·1	11th	54·5	29th
10. IRELAND, S.	Dublin	29·647	44·2	44·5	44·4	40·3	49·7	45·0	32·1	11th	57·8	4th
	Parsonstown	29·647	41·9	42·1	42·0	37·3	49·8	43·6	29·0	11th	57·8	4th
CHANNEL	Jersey (St. Aubin's)	29·895	44·6	44·3	44·5	40·9	48·8	44·9	35·7	2nd	53·7	21st

NOTE.—The stations marked M are in connection with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of FEBRUARY 1880. corrected for Diurnal Range.

beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of								
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·235	·233	·234	89	90	90	8·1	7·3	7·7	3·910	·440	29th	25	1	3	0	0	16	15	1	1	0	12	15	11	11	6	1
·234	·241	·238	89	91	90	—	—	—	1·340	·260	27th	16	1	0	0	—	—	1	6	5	6	5	6	15	5	10	0
·194	·196	·195	87	85	86	6·4	7·1	6·8	4·710	1·000	6th	21	3	0	0	1	6	6	2	6	1	7	11	27	2	2	0
·219	·221	·220	88	88	88	8·3	8·6	8·5	2·300	·550	7th	13	1	0	1	1	20	10	1	3	0	11	1	17	21	4	0
·214	·215	·215	88	89	88	7·7	6·3	7·0	3·873	·694	18th	23	3	1	0	3	13	0	3	0	1	1	1	20	6	2	24
·229	·231	·230	86	88	87	6·2	4·6	5·4	1·736	·423	18th	13	0	0	0	7	9	1	0	2	1	4	20	14	9	2	6
·240	·235	·238	89	92	90	6·7	5·6	6·2	1·746	·430	18th	13	1	0	0	5	13	0	1	4	3	2	23	15	5	4	1
·219	·231	·225	89	89	89	6·8	5·6	6·2	1·790	·600	16th	18	0	0	0	5	10	1	2	2	2	4	20	7	15	6	0
·237	·236	·237	93	93	93	7·1	5·3	6·2	1·350	·420	16th	15	0	0	0	4	10	1	1	4	2	3	5	15	24	4	0
·224	·223	·224	94	93	93	6·9	4·9	5·9	2·201	·540	16th	19	1	0	0	5	10	3	1	3	1	5	13	18	10	4	3
·226	·230	·228	88	92	90	8·2	7·3	7·8	2·127	·640	18th	23	0	0	0	1	17	1	0	4	1	6	13	23	4	6	1
·232	·233	·233	90	92	91	6·1	5·8	6·0	1·710	·350	16th	17	0	1	1	4	10	3	1	5	1	5	11	15	13	1	6
·235	·242	·239	96	92	94	8·8	6·2	7·5	1·830	·460	7th	20	0	0	1	0	15	0	5	1	1	8	12	11	12	8	0
·240	·249	·245	92	91	92	7·6	6·4	7·0	1·780	·660	16th	16	1	0	0	1	11	3	2	1	4	8	9	16	15	3	0
·207	·225	·216	92	92	92	8·0	5·4	6·7	6·454	1·120	18th	20	2	2	0	2	11	0	0	2	7	2	1	3	32	11	0
·216	·226	·221	92	91	91	7·3	6·8	7·0	2·760	·610	16th	21	1	1	1	3	14	14	1	3	1	7	6	20	8	6	6
·225	·232	·229	89	87	88	8·7	6·4	7·6	2·350	·880	16th	18	0	0	0	2	18	0	0	5	0	2	7	33	1	7	3
·224	·226	·225	91	90	90	7·8	6·5	7·2	1·747	·607	16th	20	2	1	0	1	14	6	4	1	0	3	13	22	9	6	0
·234	·240	·237	94	93	94	9·3	6·1	7·7	2·480	·510	16th	23	2	0	1	1	18	7	4	2	2	6	19	16	6	2	1
·230	·226	·228	88	87	88	7·0	7·0	7·0	3·134	·740	16th	22	1	0	0	0	10	0	3	5	4	7	7	23	5	4	0
·240	·244	·242	89	89	89	7·0	6·3	6·7	4·830	·950	18th	23	0	2	0	3	8	0	3	0	0	7	19	8	6	5	10
·232	·235	·234	94	92	93	8·1	7·0	7·6	3·763	·720	16th	26	0	0	0	1	16	0	3	0	0	5	6	15	10	0	19
·238	·232	·235	90	90	90	8·1	7·5	7·8	3·668	·863	16th	20	0	1	0	1	18	0	1	5	1	8	4	15	10	6	8
·243	·242	·243	93	94	94	7·8	5·3	6·6	1·730	·630	16th	14	1	0	0	3	9	2	1	6	0	3	8	25	6	2	7
·237	·238	·238	93	93	93	8·1	6·6	7·4	2·071	·533	16th	19	0	0	0	2	15	3	5	3	0	4	15	14	11	5	1
·240	·248	·244	93	91	92	8·2	7·3	7·8	3·538	·765	16th	21	0	1	0	2	17	3	2	5	1	10	6	19	6	5	4
·240	·244	·242	94	93	93	6·7	5·8	6·3	2·896	·560	7th	24	0	0	0	4	10	7	4	3	1	4	11	14	13	3	6
·241	·248	·245	87	87	87	7·7	8·0	7·9	11·560	1·400	6th	25	3	0	0	0	16	5	2	0	4	7	14	15	6	5	5
·241	·244	·243	90	91	90	—	—	—	4·108	·500	18th	25	1	1	0	—	—	2	0	3	5	8	8	13	11	4	6
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·236	·245	·241	92	92	92	7·1	5·8	6·5	1·830	·280	25th	20	0	0	0	3	10	7	2	2	8	4	0	28	8	1	5
·258	·251	·255	92	93	92	7·3	7·0	7·2	3·678	·760	7th	24	0	2	0	0	12	5	3	2	4	5	7	13	11	8	6
·247	·247	·247	84	84	84	6·0	4·6	5·3	1·750	·314	7th	19	1	1	0	5	8	5	2	2	2	4	2	19	24	3	0
·269	·265	·267	92	92	92	6·7	5·8	6·3	3·436	·545	7th	24	0	1	0	2	9	4	2	2	5	13	10	12	7	6	1
·264	·260	·262	92	94	93	6·9	5·9	6·4	4·890	·520	18th	23	0	1	0	3	11	7	3	0	6	6	8	11	7	5	12
·239	·234	·237	96	95	96	8·1	8·2	8·2	11·600	1·750	15th	24	2	7	2	2	18	3	4	4	2	4	6	19	13	4	2
·264	·261	·263	91	92	92	7·5	7·1	7·3	4·630	·810	15th	23	1	5	0	2	16	7	2	7	0	3	12	19	11	3	1
·240	·252	·246	88	91	90	7·1	7·7	7·4	2·520	·355	18th, 29th	21	0	1	0	1	14	0	1	1	2	6	17	16	12	1	2
·228	·243	·236	91	93	92	8·5	7·9	8·2	3·483	·530	19th	18	1	0	0	0	17	5	0	3	3	5	8	14	3	2	20
·233	·245	·239	87	90	89	8·8	7·6	8·2	2·484	·345	16th	24	0	2	0	1	19	1	3	1	1	6	9	9	6	4	19
·242	·248	·245	83	84	84	6·2	6·6	6·4	2·581	·599	7th	17	0	1	0	3	10	2	3	0	2	3	10	13	18	4	5
·241	·245	·243	90	91	91	7·3	7·9	7·6	2·691	·372	11th	24	0	2	0	3	16	3	1	1	0	7	10	10	10	2	7
·263	·258	·261	89	89	89	8·0	6·1	7·1	3·540	·645	18th	22	0	1	0	2	15	4	1	7	1	4	13	15	9	3	5

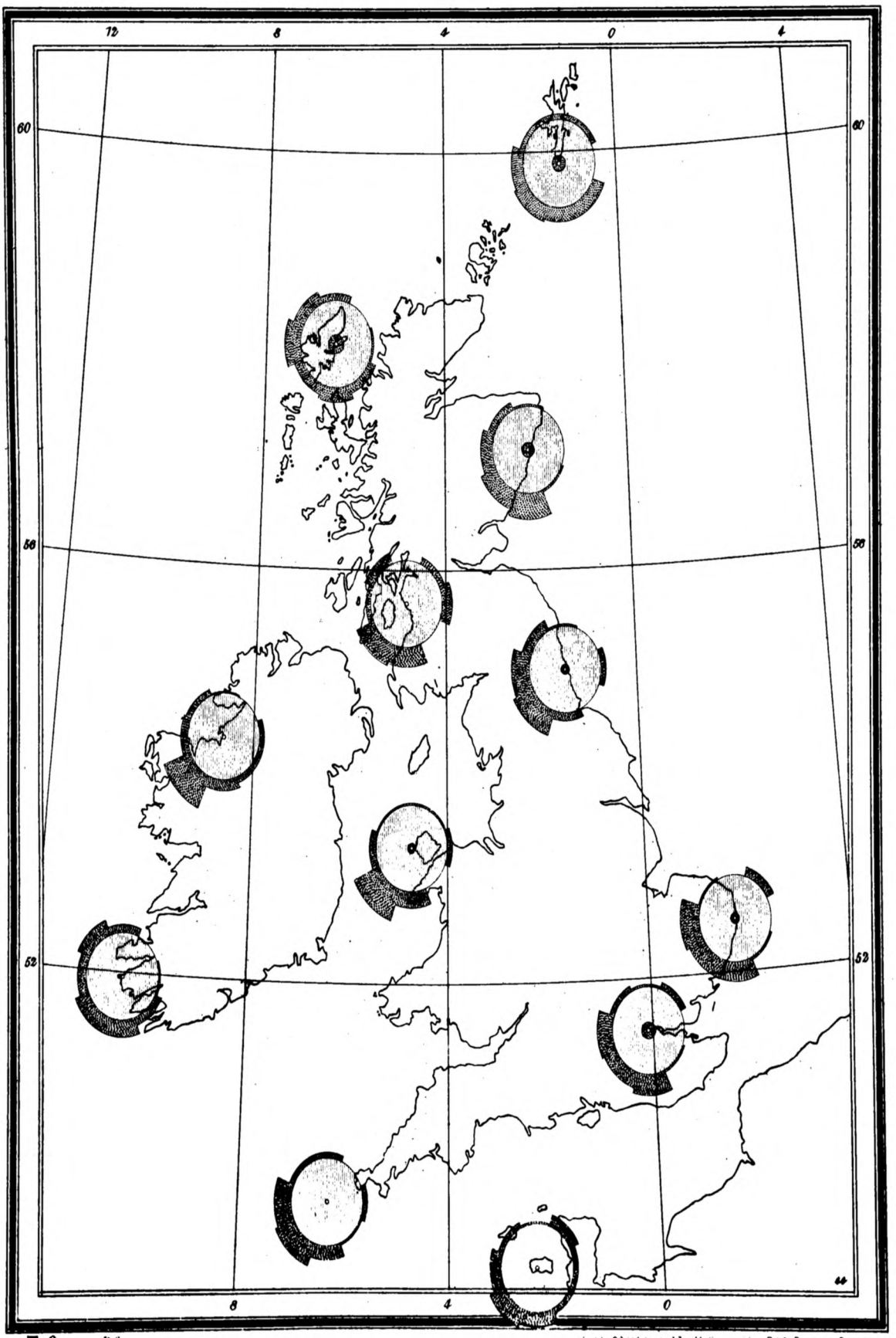
TABLE C., FEBRUARY.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS, during the Month of FEBRUARY 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

Names of Districts.	Names of Stations.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Air Temperature. At 8 a.m.	Air Temperature. Means of Minima.	Air Temperature. Means of Maxima.	Air Temperature. Means of Min. and Max. combined.	Air Temperature. Absolute Extremes. Minimum.	Air Temperature. Absolute Extremes. Date.	Air Temperature. Absolute Extremes. Maximum.	Air Temperature. Absolute Extremes. Date.	Tension of Vapour.	Relative Humidity.	Amount of Cloud (0 to 10).	Rainfall. Total Fall in the Month.	Rainfall. Maximum Fall in One Day.	Rainfall. Date.	Weather. No. of Days of Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	Wind. No. of Observations of North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																	
0. SCOTLAND, N.	Sumburgh Head	29·440	41·4	37·7	44·8	41·3	28	27th	50	4th	·225	87	8·3	5·61	1·12	17th	27	5	0	0	2	18	15	2	2	0	5	5	6	5	2	2
	Wick	29·474	41·3	36·6	45·4	41·0	25	9th	52	4th	·232	90	6·5	1·40	0·26	26th	19	1	0	0	6	13	7	1	1	0	2	8	8	5	4	0
	Stornoway	29·443	41·2	37·7	45·3	41·5	30	27th	50	4th	·242	94	5·1	4·46	0·73	25th	19	1	2	0	11	7	12	2	0	1	3	5	4	7	4	3
1. SCOTLAND, E.	Nairn	29·495	39·9	36·5	46·2	41·4	27	9th	55	4th	·212	87	5·6	1·52	0·38	21st	13	1	0	0	7	7	5	0	0	2	2	1	8	6	3	7
	Aberdeen	29·542	40·4	37·0	47·7	42·4	28	9th	55	20th	·222	89	6·4	2·68	0·41	7th	20	1	0	0	6	10	11	1	0	0	1	10	7	5	3	2
	Leith	29·577	42·2	37·7	49·3	43·5	29	9th, 10th	57	4th	·233	87	5·4	1·02	0·41	7th	12	0	0	0	9	8	1	0	0	0	2	4	9	10	4	0
2. ENGLAND, N.E.	Shields	29·647	40·9	37·7	48·1	42·9	32	6th, 9th	56	4th	·214	84	6·0	1·24	0·26	16th	14	0	0	0	6	9	10	1	0	2	0	3	10	8	4	1
	York	29·707	39·7	34·9	48·2	41·6	26	6th	55	19th	·218	89	6·4	1·79	0·58	16th	18	0	0	0	8	13	1	3	1	1	1	10	2	8	3	0
	Spurn Head	29·703	40·1	37·2	45·6	41·4	34	1st, 5th, 6th.	52	20th, 29th	·225	91	6·0	1·05	0·29	16th	14	0	0	0	7	9	3	2	2	0	4	8	7	5	1	0
3. ENGLAND, E.	Yarmouth	29·788	39·9	35·4	45·0	40·2	31	4th, 5th, 6th, 25th.	53	19th, 29th	·225	92	6·2	1·92	0·47	16th	15	1	0	0	8	11	3	0	3	0	1	7	7	9	1	1
	Cambridge	29·785	39·6	34·2	50·1	42·2	27	1st, 2nd. 5th.	59	18th	·229	94	7·0	1·63	0·33	16th	16	0	0	0	8	17	0	3	0	0	3	9	11	1	2	0
4. MIDLAND COUNTIES.	Nottingham	29·764	39·6	34·5	48·2	41·4	27	1st	56	29th	·219	90	6·4	2·00	0·74	16th	23	0	0	0	10	14	2	2	1	1	2	8	10	1	2	2
	Oxford	29·789	39·8	35·7	47·9	41·8	25	2nd	55	18th, 20th	·226	93	8·9	2·33	0·71	16th	22	0	0	0	1	23	0	1	1	0	3	5	6	6	0	7
5. ENGLAND, S.	London	29·814	40·2	35·9	49·9	42·9	25	5th	55	16th, 18th, 20th, 28th.	·224	90	8·6	2·23	0·47	7th	19	0	2	0	3	23	1	1	2	0	1	8	6	7	2	2
	Dover	29·829	40·1	37·3	44·8	41·1	30	1st	52	28th	·227	92	5·9	1·82	0·56	7th	20	0	0	0	9	11	3	1	2	0	0	3	10	11	1	1
	Hurst Castle	29·808	41·0	38·3	45·5	41·9	30	1st	51	16th	·253	98	5·9	3·41	0·89	16th	21	0	0	0	8	10	5	2	3	1	3	5	6	6	3	0
6. SCOTLAND, W.	Ardrossan	29·594	42·4	39·4	46·4	42·9	31	9th, 10th	50	29th	·239	88	6·7	2·96	0·50	28th	25	0	0	0	7	15	5	0	2	4	0	8	9	2	4	0
7. ENGLAND, N.W.	*Hawes Junction	28·418	37·8	33·2	42·2	37·7	25	6th	47	1st, 3rd, 4th.	·216	96	7·9	7·93	1·20	18th	22	3	1	0	2	17	6	2	2	3	2	4	7	8	0	1
	Liverpool	29·694	41·2	37·9	48·2	43·1	29	6th	53	18th, 19th, 29th.	·225	88	6·8	1·21	0·23	16th	19	0	0	0	5	12	2	1	1	2	9	5	5	6	0	0
	Holyhead	29·670	43·0	40·5	47·9	44·2	35	6th	51	19th, 28th	·255	92	5·4	2·78	0·93	7th	23	0	0	0	10	6	1	1	1	2	0	6	14	3	1	1
8. ENGLAND, S.W.	Pembroke	29·709	44·0	41·3	46·9	44·1	35	24th	49	6th, 19th	·267	93	5·9	3·19	0·54	15th	25	0	1	0	7	8	12	3	0	1	2	7	8	5	3	0
	Prawle Point	29·817	43·6	39·2	49·2	44·2	32	25th	53	1st, 4th	·266	93	6·6	2·19	0·65	16th	24	0	0	0	4	10	6	3	3	1	2	5	6	6	3	0
9. IRELAND, N.	Donaghadee	29·642	41·5	38·0	47·9	43·0	31	11th, 12th	53	19th, 29th	·247	94	5·2	2·25	0·35	16th	24	0	0	0	9	8	4	1	0	0	3	4	10	10	1	0
	Mullaghmore	29·569	42·9	39·6	48·4	44·0	34	13th	54	4th	·241	87	8·2	3·49	0·43	16th	25	0	4	0	3	18	15	1	0	2	2	4	15	3	2	0
10. IRELAND, S.	Valencia	29·659	46·0	41·9	50·9	46·4	36	11th, 13th	54	6th, 18th	·261	85	8·4	6·80	0·74	15th	27	0	1	1	0	16	15	3	0	1	3	6	6	4	6	0
	Roche's Point	29·674	44·1	40·2	49·3	44·8	34	11th	53	3rd	·251	86	6·2	5·74	0·82	15th	24	0	1	0	4	10	8	5	1	0	2	1	9	8	3	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·761	47·6	44·8	50·8	47·8	40	25th	54	19th, 20th	·308	94	8·4	3·26	0·75	18th	25	0	0	1	0	16	15	2	0	2	1	5	9	8	2	0
	Jersey (Noirmont)	29·843	42·9	40·1	47·5	43·8	35	2nd	52	16th, 18th	·258	94	6·7	3·77	0·65	18th	23	0	0	0	6	11	6	1	4	2	2	6	7	5	2	0

* Hawes Junction is 1,135 feet above mean sea level, and the barometric observations at this station are not corrected for altitude.

Monthly Wind Chart for February 1880.



To face p. 34.

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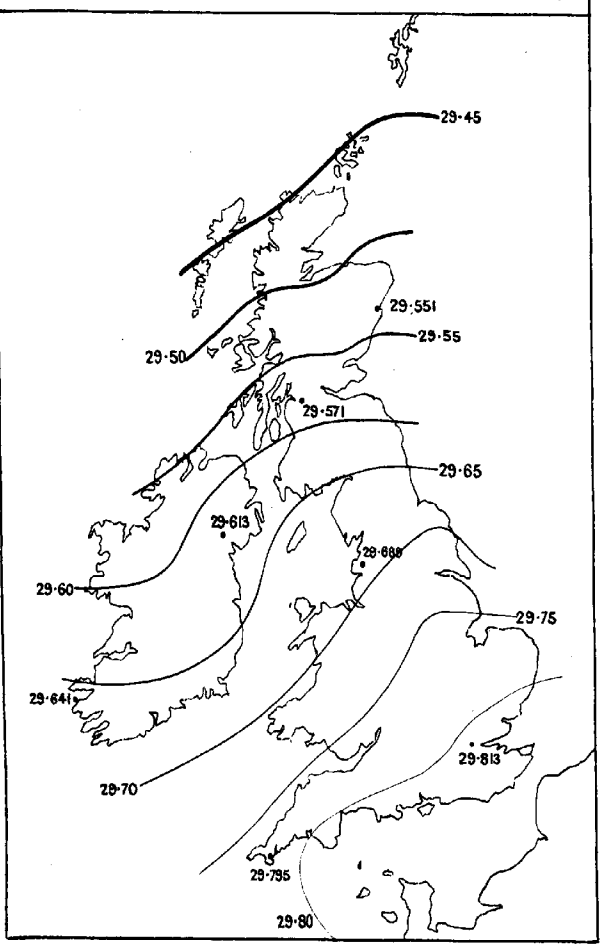
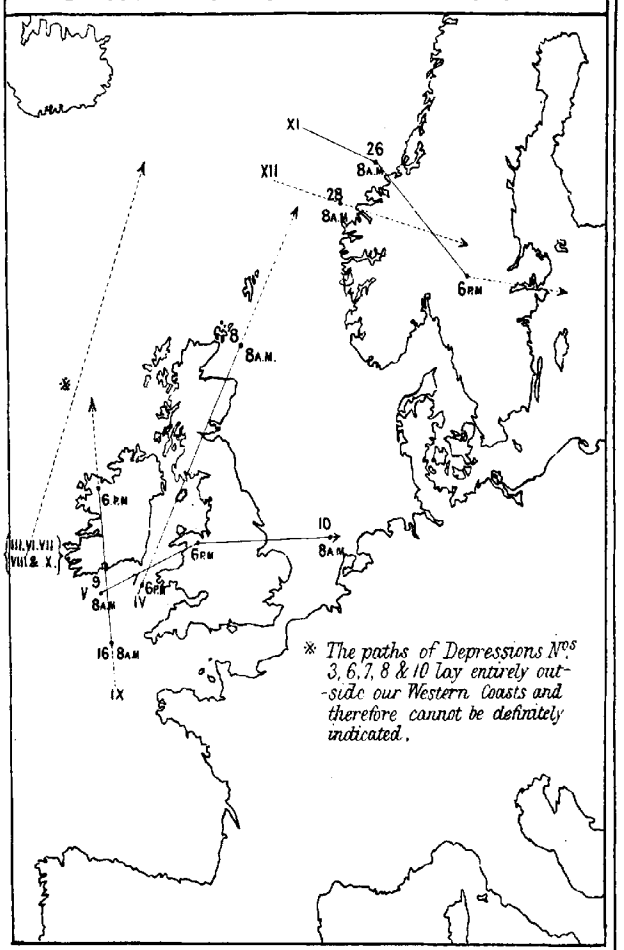
MONTHLY WEATHER CHART. FEBRUARY 1880.

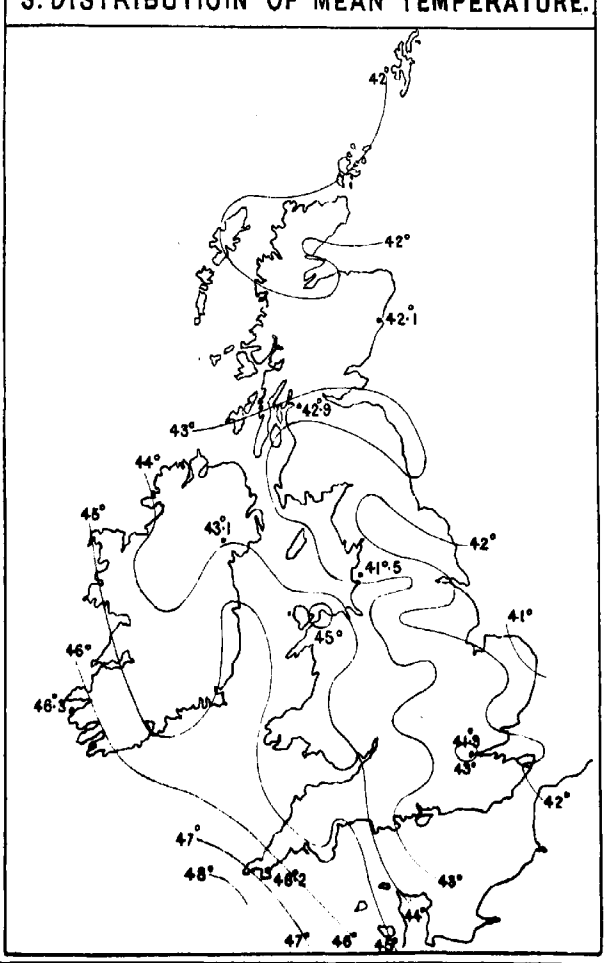
1. DISTRIBUTION OF MEAN PRESSURE.



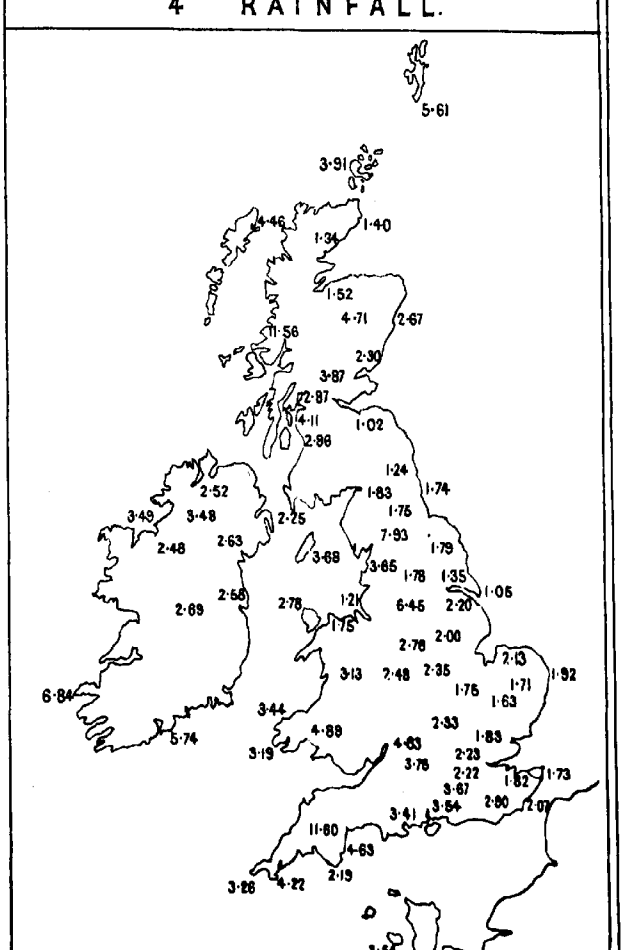
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTIOIN OF MEAN TEMPERATURE.



4 RAINFALL.



To follow Wind Chart for February.

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REMARKS FOR MARCH 1880.

(Tables A. to C., with Monthly Wind and Weather Charts.)

Wind.—The month began with fresh or strong Westerly winds and gales, which continued for some days, the force, however, becoming more moderate by the 4th. On the 6th there was a temporary shift to South; but this was followed next day by a spell of light or moderate anticyclonic winds, which at first blew generally from the Northward, then from East over the southern districts and from South-west and West in the north, and then became generally Southerly, from which quarter it blew with but little variation for some days. On the 14th the direction became more Easterly, and at the south-eastern stations the force increased a good deal, and it continued to blow freshly, rising occasionally to a slight gale, for several days, but continuing light on the eastern coasts. These conditions continued without any important change till quite the close of the month, when after a few hours of light and variable airs a Southerly current appeared in the west on the 30th and quickly spread itself over the whole kingdom, at the same time increasing in strength to a gale. A strong Southerly wind was still blowing over the greater part of Great Britain at the close of the 31st, although at the south-western and western stations it had then veered to North-west and West.

The monthly wind chart exhibits the predominance of Easterly winds over the greater portion of the United Kingdom, the per-centage of Southerly winds being also considerable at some of the most northern stations.

Pressure.—Owing to the prevalence of anticyclonic conditions, the mean pressure for the month was about two tenths of an inch above the average, the values decreasing from about 30·1 inches over eastern and central England to about 29·95 inches on the north-western coasts, a distribution of mean pressure which agrees with the predominating winds. The range of pressure amounted to nearly 2 inches at Aberdeen, owing to the low readings experienced at the beginning of the month, but at Falmouth it did not exceed 1·1 inch. The highest readings were registered on the 11th at Aberdeen, and on the 8th at all the other observatories, the highest recorded being 30·568 inches at Stonyhurst. The lowest reading was 28·570 inches at Aberdeen on the 1st; at the other observatories the minimum was reached on the night of the 2nd, except at Falmouth, where it did not occur till the 31st, and where the mercury only fell to 29·334 inches.

Movements of the Depressions.—Anticyclonic conditions prevailed throughout almost the whole of the month, and consequently the number of depressions observed was very small. Only two systems were of sufficient importance to be tabulated, and the tracks of both of these lay outside our western coasts, one moving apparently to the north-eastward and the other to the northward.

Temperature.—The mean temperature for the month was rather above the average all over the kingdom although its distribution was nearly normal, the values decreasing from about 49° in the south-west to 41° in the extreme north. The range of temperature exceeded 40° at a few English stations, and amounted to between 30° and 40° over the greater part of Great Britain; the smallest range was 16° at Scilly, and 17° at Sandwick, and the largest, 42°, at Cambridge and Strathfield Turgiss. Both the minima and maxima of the month were recorded at rather irregular dates; the lowest of the former was 20° at Churchstoke, while at a few other midland stations the mercury fell to about 23°. The highest maximum was 64°·6 at Strathfield Turgiss, but upwards of 60° was recorded at many stations.

Vapour Tension.—The mean vapour tension exhibited a considerable range, the highest value being 0·32 inch at Scilly and the lowest 0·18 inch at Braemar, but over the greater part of central and eastern England the values ranged between 0·21 inch and 0·24 inch. *Relative Humidity* ranged from about 85 to 90 per cent. over the greater part of the kingdom, but in a few cases the values were higher, reaching 95 per cent. at two or three stations.

Rainfall.—The month was by no means a wet one, but although in some districts the fall of rain was less than the average, yet upon the whole the difference was not large; most of the rain, however, fell either at the beginning or else at the close of the month. At Dartmoor 2·33 inches fell on the 2nd, and at Buxton and York falls of more than an inch in 24 hours were recorded, while at a few other stations there were daily falls nearly as large. As a rule, over the greater part of the kingdom, these maximum amounts were registered either on the 2nd or on the 31st, but in the north the heaviest falls occurred about the 12th.

TABLE A., MARCH.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of MARCH 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).						TEMPERATURE In the Shade (In Degrees Fahrenheit).						HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.				Range.	Mean for the Month.	Extremes.				Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
		Minimum.		Maximum.				Minimum.		Maximum.					
		Reading.	Date.	Reading.	Date.			Reading.	Date.	Reading.	Date.				
	ins.	ins.	D. H.	ins.	D. H.	ins.	°	°	D. H.	°	D. H.	°	in.	%	ins.
Valencia - -	29·969	29·106	2nd, 8 p.m.	30·485	8th, 10 a.m. 11 a.m.	1·379	48·5	37·0	1st, 2 p.m.	59·1	20th, 3 p.m.	22·1	·285	83	3·005
Armagh - -	30·026	28·784	3rd, 3 a.m.	·546	8th, 11 a.m.	1·762	43·9	27·2	23rd, 7 a.m.	55·0	31st, 2 p.m.	27·8	·238	83	1·850
Glasgow - -	·032	·676	3rd, 4 a.m.	·526	8th, 10 a.m. 11 a.m.	1·850	41·2	29·9	28th, 6 a.m.	56·2	30th, 3 p.m.	26·3	·212	82	2·825
Aberdeen - -	·052	28·570	1st, 7 a.m.	·508	11th, 9 p.m.	1·938	40·9	28·3	20th, 6 a.m.	53·2	29th, 2 p.m.	24·9	·202	80	1·580
Falmouth - -	·070	29·334	31st, 1 p.m.	·427	8th, 11 a.m.	1·093	47·1	36·7	30th, 2 a.m.	55·4	5th, 1 p.m.	18·7	·276	86	3·505
Stonyhurst - -	·087	28·906	3rd, 5 a.m.	·568	8th, 10 a.m.	1·662	41·7	27·8	20th, 6 a.m.	55·4	30th, 3 p.m.	27·6	·209	80	3·173
Kew - -	30·113	29·256	3rd, 2 a.m. 3 a.m. 4 a.m.	30·513	8th, 10 a.m.	1·257	44·5	27·7	29th, 7 a.m.	60·6	25th, 3 p.m.	32·9	·229	78	0·735

TABLE B., MARCH.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.									
						Means of			Absolute Extremes.			
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·986	41·9	40·4	41·2	37·6	45·8	41·7	33·3	19th	50·6	6th
	Dunrobin Castle S	30·018	42·4	40·6	41·5	36·1	47·3	41·7	30·0	3rd	55·7	29th
1. SCOTLAND, E.	Braemar S	30·046	35·1	35·4	35·3	29·8	48·7	39·3	20·1	25th	59·1	19th
	Dundee S	30·055	39·6	38·9	39·3	35·5	46·4	41·0	28·2	19th, 20th	57·7	8th, 29th
	Glenalmond	30·057	38·3	37·7	38·0	32·9	46·2	39·6	27·2	24th	57·3	29th
2. ENGLAND, N.E.	Seaham	30·079	42·6	40·0	41·3	35·8	46·9	41·4	25·8	20th	62·2	5th
	Durham*	30·082	43·1	38·0	40·6	33·8	48·5	41·2	23·1	20th	60·0	5th
	York	30·109	40·8	41·3	41·1	34·4	49·8	42·1	27·0	20th	58·0	7th
	Hull	30·124	42·5	41·3	41·9	36·7	49·0	42·9	29·0	18th, 20th	58·5	6th
	Kelstern M	30·125	41·2	38·5	39·9	34·6	47·0	40·8	23·0	20th	56·1	13th
3. ENGLAND, E.	Hillington M	30·119	43·7	39·6	41·7	34·7	52·7	43·7	25·7	20th	59·7	5th, 29th
	Geldeston	30·129	43·5	40·7	42·1	36·2	49·7	43·0	26·4	26th	60·6	29th
	Chigwell Row	30·149	44·4	41·9	43·2	37·1	54·1	45·6	27·9	29th	63·3	26th
4. MIDLAND COUNTIES.	Wakefield M	30·114	40·8	41·6	41·2	38·7	49·2	44·0	26·1	20th	59·1	29th
	Buxton M	—	38·1	40·3	39·2	31·9	51·1	41·5	23·6	8th	59·2	28th
	Cheadle M	30·108	39·7	40·2	39·9	35·3	49·4	42·4	29·0	20th	59·3	29th
	Leicester	30·105	42·0	43·4	42·7	36·1	51·8	44·0	24·8	20th	61·2	29th
	Uppingham	30·116	41·7	40·1	40·9	35·5	51·8	43·7	29·0	20th	62·8	25th
	Oscott	30·105	39·9	41·2	40·6	35·1	51·0	43·1	26·8	20th	62·1	29th
	Churchstoke M	30·116	40·2	41·6	40·9	33·6	50·4	42·0	20·0	24th	61·4	29th
	Cheltenham M	30·106	43·2	43·0	43·1	35·9	52·9	44·4	23·3	29th	62·2	25th
5. ENGLAND, S.	Marlborough M	30·118	42·4	42·2	42·3	36·2	53·8	45·0	24·6	29th	63·5	30th
	Strathfield Turgiss M	30·119	45·8	42·0	43·9	35·4	55·2	45·3	22·3	29th	64·6	30th
	Ramsgate M	30·135	44·5	43·7	44·1	39·9	50·6	45·3	34·8	11th	61·8	5th
	Folkestone	30·126	44·6	43·0	43·8	39·5	51·0	45·3	31·3	29th	60·7	26th
	Southampton	30·103	46·5	44·1	45·3	38·1	54·7	46·4	26·6	29th	63·4	26th
	St. Leonards	30·118	45·9	43·3	44·6	40·1	51·5	45·8	31·1	29th	61·8	26th
6. SCOTLAND, W.	Laudale	29·992	43·3	43·8	43·6	37·8	50·3	44·1	31·7	24th	60·0	19th, 20th
	Rothsay S	30·041	41·2	40·6	40·9	36·3	49·8	43·1	32·2	24th, 28th	59·0	19th
	Pinmore S	—	—	—	—	—	—	—	—	—	—	—
7. ENGLAND, N.W.	Scaleby M	30·052	41·1	39·7	40·4	34·7	49·9	42·3	25·2	24th	60·8	19th
	Douglas (Isle of Man)	30·054	43·0	42·4	42·7	38·1	48·1	43·1	31·6	8th	54·0	29th
	Llandudno M	30·063	44·9	44·6	44·8	38·7	51·9	45·3	31·7	24th	59·5	25th
8. ENGLAND, S.W.	St. David's	30·051	45·3	44·7	45·0	40·1	50·5	45·3	36·8	22nd	56·7	20th
	Caermarthen M	30·067	45·6	44·7	45·2	38·1	54·4	46·3	27·2	29th	61·4	25th
	Dartmoor M	30·087	41·4	39·6	40·5	36·1	46·5	41·3	27·0	24th	56·0	30th
	Babbacombe M	30·090	45·5	44·8	45·2	40·7	50·0	45·4	30·9	30th	58·2	4th
9. IRELAND, N.	Londonderry	30·014	44·9	43·8	44·4	37·1	52·5	44·8	29·0	23rd	61·0	19th, 20th
	Brookeborough	29·989	41·6	43·1	42·4	36·4	50·8	43·6	29·8	22nd, 24th	57·8	30th
	Markree Castle	29·987	41·0	44·0	42·5	37·7	51·9	44·8	30·2	30th	58·7	20th
10. IRELAND, S.	Dublin	30·042	44·6	45·0	44·8	40·0	50·7	45·4	30·9	28th	58·4	30th
	Parsonstown	30·021	45·3	43·7	44·5	39·0	53·8	46·4	28·7	22nd	60·8	28th
CHANNEL	Jersey (St. Aubin's)	30·113	48·7	47·2	48·0	43·8	54·0	48·9	37·4	23rd	64·3	11th

NOTE.—The stations marked M are in connection with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of MARCH 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·230	·218	·224	88	87	88	5·5	5·7	5·6	2·910	1·250	12th	10	0	3	0	8	10	9	0	0	3	26	8	6	5	6	8
·238	·235	·237	88	93	90	—	—	—	1·610	·670	12th	8	1	0	0	—	—	0	1	11	16	8	1	14	8	3	0
·170	·180	·175	82	86	84	3·9	5·2	4·6	1·560	·760	12th	10	4	0	0	10	8	1	1	6	15	11	1	19	3	6	0
·211	·212	·212	87	89	88	8·4	7·9	8·2	2·050	·900	12th	9	2	0	0	1	22	2	0	5	5	28	0	6	11	7	0
·190	·196	·193	82	86	84	6·7	6·6	6·7	3·253	·913	12th	11	4	0	0	3	15	0	0	5	5	5	4	12	3	1	27
·221	·218	·220	82	89	86	7·5	6·1	6·8	1·625	·930	31st	6	2	1	0	3	15	1	1	1	9	12	4	10	6	0	19
·234	·213	·224	84	92	88	7·1	6·5	6·8	1·275	·540	31st	10	1	1	0	5	17	1	0	7	6	15	13	8	9	4	0
·219	·223	·221	87	86	87	7·5	5·5	6·5	2·070	1·060	31st	9	1	0	0	3	14	2	4	9	23	3	11	2	10	0	0
·232	·231	·232	85	89	87	7·8	6·8	7·3	1·510	·570	31st	7	1	0	0	2	16	0	2	6	20	10	6	6	8	2	2
·220	·217	·219	88	92	90	7·2	5·5	6·4	2·009	·900	31st	6	1	0	1	4	10	1	1	7	22	9	3	8	6	4	2
·238	·218	·228	84	89	86	7·6	7·1	7·4	1·270	·830	31st	15	2	1	2	3	16	3	0	12	19	13	1	9	5	3	c
·238	·227	·233	84	89	86	6·4	6·2	6·3	0·800	·350	31st	7	0	0	0	5	13	2	3	21	14	5	1	8	6	1	3
·248	·237	·243	85	89	87	7·2	4·5	5·9	0·640	·240	31st	5	0	0	0	5	8	2	5	8	25	7	3	2	8	4	0
·227	·234	·231	88	88	88	9·2	7·2	8·2	2·510	·900	2nd	9	1	0	0	0	17	2	1	5	24	10	6	5	10	1	0
·218	·242	·230	94	96	95	7·0	5·5	6·3	3·802	1·682	2nd	5	0	1	0	3	7	0	0	9	21	3	1	3	14	11	0
·212	·214	·213	87	86	87	6·8	4·8	5·8	2·270	·960	31st	8	1	1	1	6	9	8	0	2	34	4	1	9	4	4	4
·223	·234	·229	84	83	84	8·5	6·2	7·4	1·420	·640	31st	7	0	0	0	3	18	1	0	18	11	8	0	15	1	5	4
·233	·227	·230	88	90	89	8·1	6·2	7·2	1·259	·450	31st	11	2	0	1	3	18	3	3	10	18	5	5	9	4	0	8
·221	·231	·226	89	88	89	8·5	6·0	7·3	1·020	·600	31st	6	1	1	0	3	18	4	4	18	16	1	3	10	3	2	5
·209	·217	·213	83	82	82	7·1	5·8	6·5	1·719	·600	2nd	12	1	0	0	1	10	1	2	5	23	6	4	8	12	2	0
·233	·234	·234	83	84	83	7·1	5·0	6·1	1·200	·480	31st	6	0	1	0	3	9	1	6	4	14	9	2	6	12	2	7
·231	·227	·229	85	84	84	7·5	4·2	5·9	1·843	·710	2nd	8	2	1	0	6	11	0	1	1	29	1	1	2	11	1	15
·245	·231	·238	80	85	83	7·0	5·1	6·1	0·999	·401	31st	5	0	0	0	5	12	0	3	14	18	3	1	10	9	1	3
·267	·272	·270	91	95	93	6·3	4·8	5·6	0·270	·100	2nd	5	0	0	0	9	9	1	1	6	28	1	2	13	3	1	7
·251	·256	·254	85	92	89	6·5	4·1	5·3	0·613	·180	2nd	6	0	0	0	6	6	3	7	31	7	1	2	7	5	1	1
·244	·244	·244	77	84	80	6·2	4·0	5·1	0·835	·425	31st	6	0	1	0	7	10	2	1	20	12	8	0	13	4	3	1
·255	·254	·255	83	90	87	5·1	3·7	4·4	0·675	·286	2nd	5	0	0	0	13	9	2	4	24	12	0	1	8	8	0	5
·220	·214	·217	78	74	76	5·2	5·0	5·1	3·700	·760	6th	14	2	7	0	10	11	3	1	0	30	1	5	6	8	1	10
·220	·223	·222	84	87	86	—	—	—	3·427	·740	12th	10	0	1	0	—	—	0	1	7	19	8	0	7	8	2	10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·225	·223	·224	86	91	88	5·0	5·3	5·2	1·590	·480	31st	7	0	0	0	9	11	3	1	6	27	0	2	13	4	0	9
·242	·244	·243	87	90	88	7·1	5·8	6·5	2·801	·810	12th	9	2	1	0	4	12	1	1	2	28	5	3	6	7	3	7
·249	·252	·251	84	85	85	4·9	4·3	4·6	2·140	·790	1st	6	2	1	0	13	9	3	3	3	13	17	7	5	11	3	0
·262	·257	·260	87	87	87	6·5	4·5	5·5	2·023	·454	30th	17	0	1	0	4	9	4	2	5	22	14	3	8	5	0	3
·254	·253	·254	83	85	84	6·0	5·4	5·7	2·580	·450	2nd	16	1	1	0	10	12	2	3	1	33	1	4	8	2	0	10
·237	·238	·233	91	93	92	7·1	5·7	6·4	5·950	2·330	2nd	18	1	1	0	6	14	1	3	4	21	9	1	4	7	3	10
·267	·262	·265	88	88	88	6·7	5·8	6·3	3·180	·750	16th	14	0	1	0	7	14	4	2	15	24	1	2	8	7	2	1
·246	·251	·249	83	87	85	6·7	6·0	6·4	2·035	·590	4th	14	1	1	0	3	12	0	0	3	17	14	3	12	9	0	4
·238	·246	·242	91	88	90	7·8	6·5	7·2	2·809	·478	1st	12	1	0	0	1	14	5	0	14	7	0	1	9	2	0	29
·244	·249	·247	84	86	85	8·2	6·5	7·4	1·780	·379	1st	17	2	3	0	1	16	0	0	0	9	19	3	5	5	3	18
·249	·259	·254	84	86	85	5·7	4·5	5·1	3·129	·924	2nd	16	2	2	0	8	8	2	2	0	15	18	2	5	11	2	7
·251	·248	·250	83	87	85	6·7	5·1	5·9	3·550	·968	2nd	14	1	0	1	8	11	5	0	1	4	22	9	7	7	2	10
·279	·276	·278	81	85	83	5·9	4·9	5·4	1·809	·450	16th	12	0	1	0	8	11	2	2	11	24	5	1	5	7	3	4

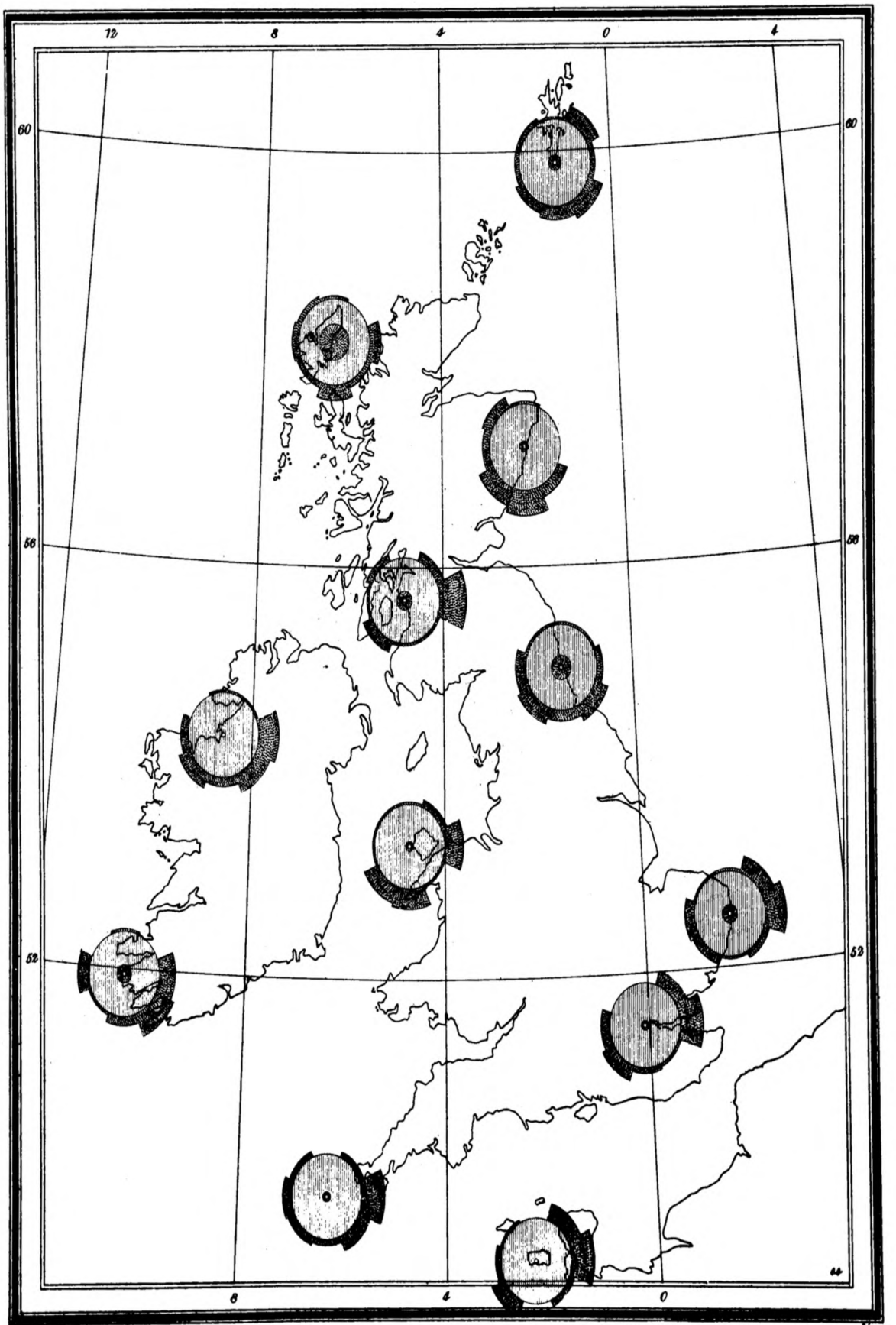
TABLE C., MARCH.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS, during the Month of MARCH 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of								
			At 8 a.m.	Means of			Absolute Extremes.							Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
				Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.																						
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND, N.	Sumburgh Head	29·988	41·3	36·9	45·1	41·0	31	1st	52	19th	·217	84	7·7	2·57	0·91	12th	13	1	0	0	3	17	5	1	6	2	7	5	4	2	2	2
	Wick	29·987	40·4	35·4	46·4	40·9	28	3rd, 19th	55	8th	·218	87	6·0	1·38	0·83	12th	8	0	0	0	9	13	4	0	1	0	4	12	1	2	6	5
	Stornoway	29·937	40·9	36·7	47·5	42·1	30	23rd	50	5th, 6th	·243	95	4·9	0·92	0·27	5th	7	0	1	0	12	9	5	1	0	5	2	6	2	3	2	10
1. SCOTLAND, E.	Nairn	30·002	37·1	33·9	47·8	40·9	26	26th, 27th	56	13th, 18th, 30th, 31st.	·192	87	3·8	1·09	0·54	12th	8	0	0	0	17	5	2	0	0	0	4	1	4	3	0	19
	Aberdeen	30·039	39·9	36·5	47·4	42·0	28	20th	58	8th	·204	83	5·7	1·58	0·98	31st	8	1	0	0	11	12	5	1	0	0	4	11	7	3	4	1
	Leith	30·036	39·4	34·2	48·6	41·4	27	19th, 24th	61	28th	·214	89	6·9	1·45	0·58	12th	12	1	0	0	8	19	1	2	1	2	7	4	2	8	5	0
2. ENGLAND, N.E.	Shields	30·084	39·9	37·2	46·0	41·6	28	20th	57	5th	·206	84	8·7	1·52	0·75	31st	10	0	0	0	1	23	5	1	1	2	6	4	6	5	1	5
	York	30·110	39·5	34·6	49·9	42·3	27	20th	58	7th	·216	90	7·7	2·07	1·05	31st	9	0	0	0	4	18	1	3	8	7	0	5	3	5	0	0
	Spurn Head	30·097	41·6	38·1	45·9	42·0	31	20th	53	5th, 29th	·229	88	6·5	1·79	0·57	2nd	9	1	0	0	7	13	2	2	5	11	2	2	7	2	0	0
3. ENGLAND E.	Yarmouth	30·119	41·8	37·6	46·2	41·9	29	29th	58	5th	·235	89	6·0	0·90	0·34	31st	6	0	0	0	7	10	3	1	6	10	2	1	3	4	1	3
	Cambridge	30·120	39·3	32·8	55·0	43·9	23	24th	65	25th	·211	88	7·0	0·97	0·37	31st	7	0	0	1	9	19	1	4	8	8	1	3	3	2	2	0
4. MIDLAND COUNTIES.	Nottingham	30·133	40·0	35·3	52·2	43·8	27	20th, 21st	63	29th, 30th	·217	88	8·4	2·14	0·81	2nd	6	1	2	1	4	24	2	4	7	2	4	6	4	1	0	3
	Oxford	30·118	40·2	35·1	54·2	44·7	27	20th, 21st, 29th, 30th.	63	25th	·218	88	7·8	1·41	0·47	2nd	7	0	0	0	5	21	2	2	5	9	0	1	4	2	0	8
5. ENGLAND, S.	London	30·122	42·2	37·4	54·1	45·8	28	29th	63	25th, 26th	·225	85	7·6	0·68	0·28	2nd	4	0	1	0	5	19	0	0	5	12	1	2	6	4	0	1
	Dover	30·117	43·7	40·9	48·2	44·6	35	29th	54	5th, 26th	·241	84	5·0	0·49	0·28	2nd	5	0	0	0	11	8	2	1	10	9	0	0	4	6	0	1
	Hurst Castle	30·090	42·5	39·4	49·8	44·6	31	29th	54	13th, 25th, 26th.	·259	95	5·7	1·09	0·38	31st	6	0	0	0	9	10	2	0	5	14	3	0	3	4	2	0
6. SCOTLAND, W.	Ardrossan	30·028	39·8	36·0	48·5	42·3	29	24th	55	18th	·209	86	6·2	3·06	0·82	12th	10	0	0	0	8	13	2	0	3	15	1	1	5	1	2	3
7. ENGLAND, N.W.	*Hawes Junction	28·813	35·2	31·5	44·9	38·2	24	24th	53	30th	·202	98	7·9	3·95	1·00	4th	10	1	4	0	4	20	2	1	7	9	2	1	6	3	0	2
	Liverpool	30·079	40·5	37·2	50·6	43·9	31	19th, 28th	59	25th	·211	84	6·3	1·72	0·93	2nd	7	1	0	0	8	12	2	0	1	9	14	1	3	2	1	0
	Holyhead	30·041	42·7	39·9	50·8	45·4	34	24th	59	25th	·248	90	4·8	2·31	0·79	2nd	13	1	0	0	13	9	1	1	2	9	1	8	7	1	1	1
8. ENGLAND, S.W.	Pembroke	30·043	43·5	40·1	48·9	44·5	33	24th, 25th	53	8th, 20th	·251	89	6·8	2·22	0·43	2nd	17	0	1	0	7	14	12	1	2	12	6	2	4	3	0	1
	Prawle Point	30·096	45·2	41·1	49·7	45·4	36	2nd, 10th, 20th.	55	30th	·278	93	7·2	2·13	0·38	2nd	17	0	0	1	3	12	2	3	10	7	1	1	4	3	1	1
9. IRELAND, N.	Donaghadee	30·047	42·0	37·8	47·9	42·9	29	20th	56	31st	·243	91	6·4	1·85	0·63	12th	14	0	0	0	5	11	2	1	0	3	9	8	3	5	2	0
	Mullaghmore	29·969	43·4	40·5	50·8	45·7	35	2nd, 3rd	57	19th, 20th	·255	91	6·4	2·47	0·75	4th	15	1	4	1	7	8	11	1	1	10	7	3	6	3	0	0
10. IRELAND, S.	Valencia	29·977	47·5	43·7	53·6	48·7	37	1st, 9th, 28th.	60	20th	·273	83	6·4	2·96	0·54	16th	18	0	1	0	6	11	9	1	0	8	10	3	1	5	0	3
	Roche's Point	30·007	46·3	42·9	52·3	47·6	36	2nd	58	5th	·279	90	7·3	4·94	0·35	16th	18	0	1	0	4	15	5	4	1	5	10	2	3	5	1	0
CHANNEL ISLANDS	Scilly (St. Mary's)	30·039	48·4	45·5	51·2	48·4	40	2nd, 30th	56	5th	·322	95	8·2	2·69	0·49	31st	19	0	1	0	2	19	14	0	2	12	5	2	3	4	2	1
	Jersey (Noirmont).	30·071	46·4	43·3	53·0	48·2	38	23rd	63	11th	·284	91	6·2	1·77	0·45	16th	13	0	0	1	8	12	4	0	7	13	2	0	6	2	1	0

* Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations at this station are not corrected for altitude.

MONTHLY WIND CHART FOR MARCH 1880.



To face p 40.

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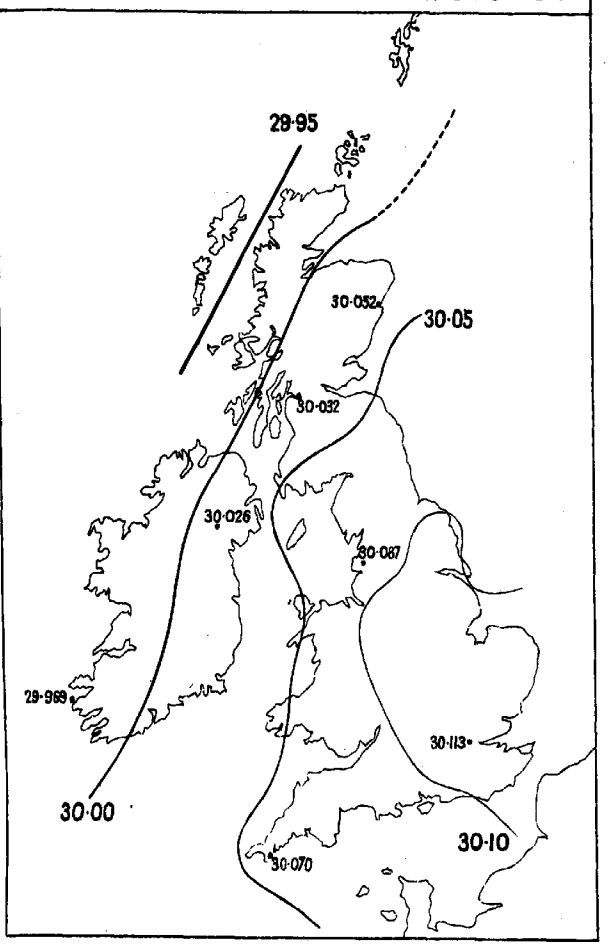
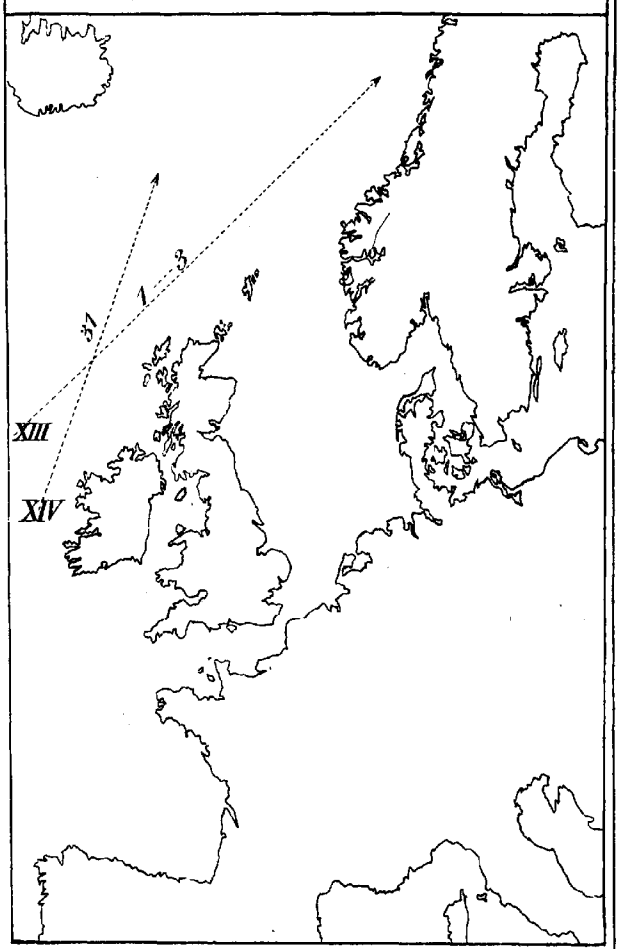
MONTHLY WEATHER CHART. MARCH 1880.

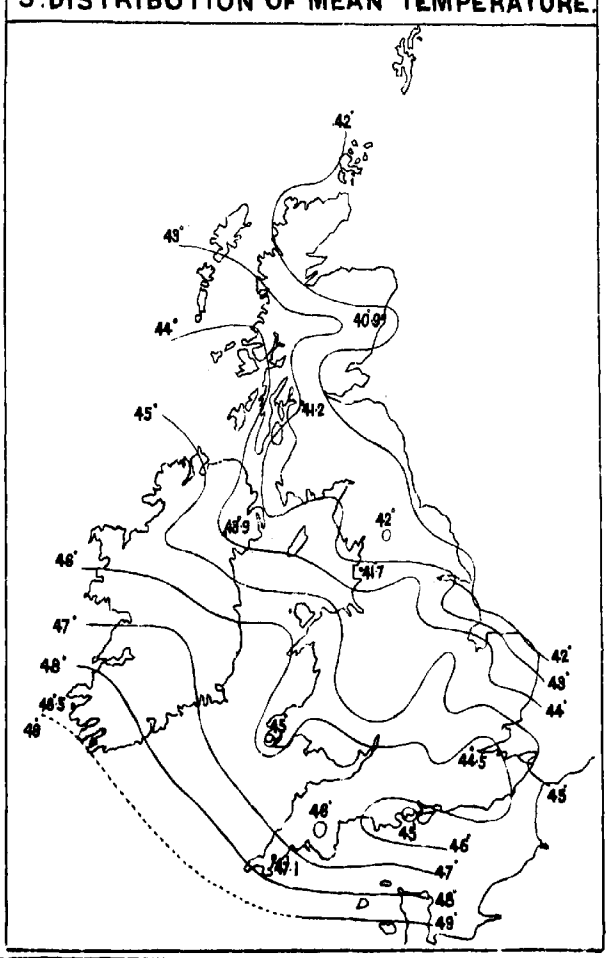
1. DISTRIBUTION OF MEAN PRESSURE.



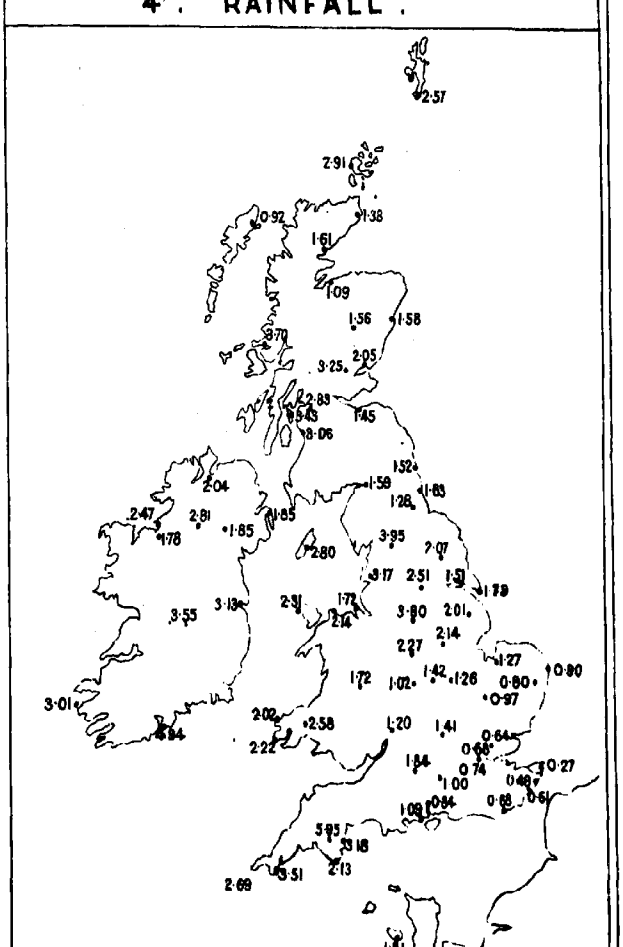
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



To follow Wind Chart for March.

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PART II.

SECTION I.

GENERAL SUMMARY.

THE weather of the quarter was generally quiet; very few cyclonic disturbances were experienced, and most of those which came under observation passed us at some distance from our shores. Dealing with the whole kingdom, pressure differed but little from the mean, but temperature was below the average over the greater part of England and over Ireland, more especially during the month of June. Northerly and North-easterly winds were very prevalent throughout the whole quarter, and the fall of rain was again rather below the mean, although the difference was less marked than in the preceding quarter.

April 1st–6th.—On the morning of the 1st two areas of relatively high barometrical pressure were observed over Europe, one—the anticyclonic system which had prevailed over western Europe during the greater part of March—extending from the Gulf of Finland over nearly the whole of European Russia, while the other and much smaller system covered the Iberian Peninsula. Between the two there had been formed a large belt of low pressure, which stretched from the British Isles south-eastwards, right across the Continent, to Turkey, the lowest readings being found in a shallow cyclonic centre, which, after crossing northern England during the preceding night, now lay close to our eastern coasts. At the same time moderate to strong North-westerly winds prevailed over the British Isles and western France, and strong South-easterly winds on the eastern shores of the North Sea, the accompanying weather being generally fine over England, Ireland, and the west of Scotland, but dull and wet on our north-eastern coasts.

The distribution of pressure which prevailed was, however, unfavourable for settled weather, and although during the early part of the 1st a general rise of the barometer took place over the United Kingdom, yet before the day had closed it had been checked at all our stations, and in Ireland had been followed by a fresh fall. This was due to the approach of a depression (No. XV.), one of a series which skirted our north-western coasts during this interval, and which kept the barometer low and the weather disturbed, although their centres did not actually touch our coasts. More than once, however, small secondary systems crossed the United Kingdom to the North Sea and the Continent, and under their influence the unsettled weather gradually extended itself more and more to the eastward and south-eastward of our Islands. On the 6th a rise of the barometer began in the west, in the rear of one of these secondary depressions, and very soon it became extended to all our stations, the weather improving at the same time.

April 7th–14th.—An important change now occurred in the distribution of pressure over the British Isles. The area of low readings which had existed to the westward of Scotland since the beginning of the month moved south-eastwards to the North Sea, and at the same time became very much shallower, while the rise of the barometer just referred to continued very briskly at all our stations. On the 9th it ceased, but by that time an anticyclone had become developed over Scotland, while a large area of low pressure had spread itself over the whole of southern, central, and eastern Europe. The anticyclone moved slowly eastwards to Scandinavia and thence to Russia, and simultaneously the barometer began to fall again steadily at all our stations, while a fresh system of low pressure approached the south-western coasts of Europe. By the 14th the weather had again become very unsettled. The highest readings were now found over Austria, and the low pressures

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had spread themselves northwards over the British Isles, while at our southern stations a more decided fall of the barometer had commenced. The wind throughout this interval had been generally from between North and East, and as a rule light or moderate in force, with rather cold and dull but dry weather.

April 15th–23rd.—The decrease of pressure just referred to soon became general over the kingdom. On the morning of the 15th a shallow cyclonic centre (No. XVI.) was observed at the mouth of the Channel, from whence it travelled in a north-westerly direction across Ireland, but the accompanying winds were not very strong, although the weather was very disturbed. Other and larger systems of low pressure, however, such as Nos. XVII. and XVIII. soon followed skirting our western coasts and bringing strong Southerly and South-westerly winds and gales, while one or two secondary disturbances crossed right over the kingdom from west to east. During the whole of the interval the barometer was unsteady, the most important movement being a rather brisk rise on the 20th which was followed during the night by a rapid fall on the approach of depression No. XVIII. After the secondary centre which accompanied this system had passed, the barometer again rose, and continued to do so till the close of the 23rd, by which time the general distribution of pressure had again become quite changed.

April 24th–May 1st.—On the morning of the 24th the highest pressures were observed over France and the Bay of Biscay, and the lowest over Scandinavia, the barometer over the Iberian Peninsula being also relatively low. During the next two days the highest readings moved to our western coasts, and the barometer continuing to rise, an anticyclonic system (No. VII.) became developed over the United Kingdom, while central Europe became again covered by a large area of low pressure. On the 30th the mercury began to give way over the United Kingdom, and the fall becoming general and brisk, the anticyclone became dispersed by the following day, the area of highest readings shifting its *locale* to the Continent. The fall of the barometer was due to the approach of a shallow depression towards the coast of Norway, and while it remained in the neighbourhood of our coasts, it caused the winds to freshen somewhat from the Southward at our northern stations. During the greater part of this period, however, the direction of the wind had been from between North and East, and its force light to moderate, although at our southern stations it had occasionally blown rather strongly.

May 2nd–21st.—The distribution of pressure had now become somewhat irregular, there being on the morning of the 2nd two areas of relatively high pressure, one to the westward of Great Britain and the other over the Baltic Provinces, while readings were low to the northward of Scotland, and also over the whole of the Mediterranean. During several hours the low pressures in the south continued to extend themselves northwards and eastwards over the greater part of Europe; the smaller high-pressure area disappearing meanwhile over eastern Russia, while the larger one in the west (No. VIII.) became somewhat developed and extended itself rather more over Great Britain. By the 6th a large belt of low readings had become spread over the Continent from the Mediterranean to Finland, but on the 8th pressure began to increase more decidedly over the United Kingdom, and when shortly afterwards the centre of the anticyclone moved to Scandinavia and Finland, the region of low pressures again became restricted to the southern half of Europe. Later on still the anticyclone returned again south-westwards, and from the 15th its centre was again observed over the British Isles, till the approach of a fresh series of depressions towards the northern coasts of Europe caused it to move away to the south-westward of the British Isles. Throughout the whole period the movements of the barometer over our Islands were gradual and slight, and the weather experienced was fine, with light or moderate winds generally from between North and East; early on the 21st, however, a brisk fall of the mercury took place at all our stations, and was still in progress at the close of the day.

May 22nd–27th.—This was a period of unsettled weather, during which a series of depressions approached the Norwegian coast from the Atlantic, and although the paths of

their centres lay to the northward of our coasts, they kept the barometer low, especially at our northern stations, and caused some strong winds to blow over the United Kingdom. The rapid fall of the barometer on the 21st was checked on the 22nd, and was succeeded for a few hours by a slight rise, which was most marked at the Scottish stations. Before midnight, however, the mercury was falling again, and it continued to do so throughout the next day and till the early morning of the 24th, when its lowest point was reached. The rise which ensued was followed by a fresh but slight fall, which began at the close of the 25th, and was due to a large depression (No. XX.) whose centre was very distant from us; but at the same time a small secondary system became developed over England, and caused a decided fall of the barometer at the southern stations during the night of the 26th. As this passed away to the North Sea, however, the barometer rose again generally, and an area of high pressure which had existed for some time over or near Spain began to move northwards to the British Isles.

May 28th–June 3rd.—All over the United Kingdom the barometer continued to rise briskly till the 29th. A general fall then ensued, and continued till the close of the 30th, when it ceased at the northern and north-western stations, where presently the mercury began to rise again; in the south-west, however, the fall did not cease till some hours later, and in the south-east of England it continued, with a slight check on the 1st, till the close of this period. During the interval the anticyclone referred to in the last paragraph passed over the greater part of France, the southern half of England, the North Sea, and the Netherlands, to Scandinavia, where its centre was observed on the morning of the 31st; it then extended itself to the westward over Scotland, and by the close of the 3rd had passed entirely to the westward of Ireland. Simultaneously with these movements a large, but very shallow, area of low pressure, which had first appeared in the west of France on the 1st, had moved northwards, and on the 3rd its centre lay over the Netherlands. The wind was at first Westerly, but it gradually backed to South and through East to North; and although on the 30th it blew very strongly on our western and northern coasts, it was, as a rule, moderate in force; but the weather was changeable, and the temperature below the mean.

June 4th–13th.—The shallow low pressure centre just referred to, after becoming somewhat deeper, moved to Scandinavia, where it remained for a day or two, and then became filled up. To the westward of Norway, however, a much larger area of low readings existed, and this gradually spread itself over the whole of western Europe, which it entirely covered by the 10th. Up to this date the barometer had been unsteady and generally low over the United Kingdom, and in the extreme west it was again falling, although elsewhere it had now become steady or showed a tendency to rise. The fall in the west was caused by the approach of a new, but apparently distant, depression, which, however, caused fresh Southerly winds to blow over Ireland, but as this disturbance passed away to the northward at the close of the 12th, the barometer rose at most of our stations, and in the west, the movement continued to be very brisk throughout the 13th. By the close of that day pressure had again become very uniform over the greater part of Europe, although an anticyclone, which had begun to appear over the Gulf of Finland on the 12th, had become much more developed. But the weather, which had all through this interval been cold and dull, began to improve, although it was still very unseasonable.

June 14th–30th.—A new area of high pressure was now observed to the south-west of our Islands, and this system spreading itself northwards, soon became united to the anticyclone over Scandinavia, so that by the 16th barometrical readings had become high over the whole of northern Europe, the lowest readings being reported from the south-east of Europe. The barometer soon afterwards began to fall again in the west, and on the 18th the movement became general. With this a large shallow depression appeared upon our western coasts, and upon the anticyclone becoming dispersed, it gradually extended itself to the eastward over the Continent, and for some days the barometer was uniformly low over the greater part of Europe. Towards the close of the month, however, another small anti-

cyclone became developed over Spain, and on the 27th it moved northwards over the Bay of Biscay and France, and caused the barometer to rise once more at our southern and south-western stations; but this movement did not extend very far northwards, and in Scotland was not felt at all, and a few hours after it had begun the high-pressure area became rapidly dispersed again under the influence of some shallow depressions which were then beginning to arrive upon the coast of Norway. Throughout this interval the weather was moderately fine, but some severe thunderstorms were experienced, with heavy local falls of rain. At its close the distribution of pressure over Europe had become very uniform, the lowest readings being observed over Scandinavia and Russia, and the highest in Portugal.

SECTION II.

TABLE OF CYCLONIC SYSTEMS.—APRIL 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XV. April 2.	No. XVI. April 15–16.
Form	Doubtful	Nearly circular.
Size	Large	Moderate.
Depth	Moderate	Shallow.
Where first observed	Off our north-western coasts	Mouth of the English Channel.
Direction of Motion	Probably northerly	North-westerly.
Rate of Motion	Unknown	Slow.
Regions passed over by steepest Gradients	The British Isles	The British Isles and the Channel coasts.
Termination	Disappeared to the northward of Scotland	Disappeared to the north-west of Ireland.
Time under Observation	Less than 24 hours	About 36 hours.
Accompanying Winds	Westerly over Ireland and south-western England, Southerly over the rest of England and most of Scotland, South-easterly in the extreme north; fresh or strong to a gale in force.	North-easterly to South-easterly in Scotland and eastern England, Southerly to Westerly on our south-western coasts; generally strong.
„ Weather	Dull generally, with rain at most of our stations	At first generally dull and unsettled, with rain; afterwards fine and bright in the Channel and at our southern stations.
„ Rainfall	Very general, and at some stations rather heavy	Very general, but not very heavy.
REMARKS	This depression was only one of a series which passed outside the Hebrides during the first six days of the month. Very little can be learned of their characteristics, owing to the paths they followed, but during the time they were in the neighbourhood of our Islands they kept the barometer low, and the weather unsettled, while secondary depressions more than once extended themselves eastwards across the kingdom to the North Sea.	This area of low pressure was not accompanied by very strong winds, although the weather was very unsettled during the time it was passing over our Islands. When it was first observed its centre was apparently between Brest and Scilly, and from thence it travelled slowly to the north-west, passing across Ireland and disappearing over the ocean beyond.

TABLE OF CYCLONIC SYSTEMS.—APRIL 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XVII. April 18.	No. XVIII. April 21-22.
Form	Unknown	Probably elliptical
Size	Large	Large
Depth	Probably deep	Moderate
Where first Observed	To the westward f Ireland	Near the Hebrides
Direction of Motion	Northerly	North-easterly
Rate of Motion	Unknown	Moderate
Regions passed over by steepest Gradients	The British Isles	The British Isles, the North Sea, and Scandinavi
Termination	Disappeared to the north-west of Great Britain	Disappeared over northern Europe
Time under Observation	About one day	About a day and a half
Accompanying Wind	A strong Southerly gale blew on all our western coasts, but on the eastern coast of England the wind did not increase to more than a strong breeze.	South-westerly strong to a gale; afterwards veering to West and North-west, and decreasing in force.
„ Weather	Dull and overcast, with rain in the west, but fine in the south-east of England.	Generally overcast and dull, with heavy rain in the west and north; afterwards finer.
„ Rainfall	Confined to the western stations, at some of which it was heavy.	General at the western and northern stations, and at many places very heavy; little or none fell over the eastern half of England.
REMARKS	The centre of this disturbance kept entirely to the westward of our coasts, barometrical pressure being at the time relatively high over the whole of western Continental Europe. Gradients were steep over the greater portion of the kingdom, but were not so over eastern England, and were only very slight on the eastern shores of the North Sea.	The centre of this system, like its predecessor, kept to the westward of Great Britain; but it was followed by a secondary centre which passed across the north of Ireland and south of Scotland during the night of the 21st, and was observed over the North Sea on the following morning, when the main depression lay off the North-western coast of Norway.

TABLE OF CYCLONIC SYSTEMS.—MAY—JUNE 1880.

No. XIX. May 23-24.	No. XX. May 26.	No. XXI. June 7.
Unknown	Unknown	V-shaped.
Large	Large	Small.
Moderate	Moderate	Shallow.
To the northward of Scotland	To the north-west of Scotland	Over England.
Easterly or north-easterly	Probably north-easterly	Easterly.
Probably moderate	Moderate	Moderate.
The British Isles, the North Sea, and Scandinavia	The British Isles and Scandinavia	The south of England and Channel.
Passed away to northern Russia	Disappeared over the ocean to the northward of Scotland.	Became filled up.
Less than a day	Less than a day	Half a day.
South-westerly to Westerly, strong to a fresh gale.	South-westerly, veering to West; moderate in the south of England, but rising to a gale over the whole of Scotland.	Strong Westerly winds veering to North-west and moderating.
Generally dull and unsettled	At first fine, but afterwards heavy rain fell over a great part of England.	Dull, unsettled, and rainy; with thunderstorms in the north and north-east.
Rain fell at most of our northern and western stations, but the amounts registered were not large.	Very heavy at some stations in the west of England; later on the rainfall became general, but was not very heavy.	Very general, but as a rule not very heavy.
This system was one of a series which had been passing to the northward of our Islands, and which had caused rather steep gradients to prevail, although their centres had not come under observation. In this case the centre approached somewhat nearer to our coasts, but was still too remote to allow of its characteristics being well observed.	This was another depression whose centre kept beyond our northern stations, and whose characteristics could not, therefore, be accurately observed. During the night of the 26th it was followed by a secondary system which passed across England to the North Sea, and in its passage caused a good deal of rain to fall at several of the English stations.	This depression was secondary to a large area of low pressure which lay to the north-east of our Islands. The accompanying gradients were steep only over the southern half of the kingdom, and the winds only attained the force of a gale at a few exposed stations.

TABLES OF GALES.

No. 13. (Cyclonic System, No. XVI.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
April 15–16, 1880.													
Sandwick	Noon (16th).	E.S.E.	—	—	—	—	2 p.m. (16th).	E.S.E.	2	Noon & 1 p.m. (16th).	E.S.E.	30	—
Seaham	Noon (15th).	N.E.byN.	—	—	—	—	3 p.m. (15th).	N.E.	3	Noon & 1 p.m. (15th).	N.E. by N.	32	—
Holyhead.	8 a.m. (15th).	N.E.byE.	1 p.m. (15th).	E.N.E.	45	9	Midnt. (15th).	E.	16	6 p.m. (15th).	E. by N.	54	—
	1 a.m. (16th).	E.	10 a.m. (16th).	S. by W.	40	1	6 p.m. (16th).	S.S.W.	17	10 a.m. (16th).	S. by W.	40	—
Yarmouth	2 p.m. (15th).	E.N.E.	8 p.m. (15th).	E.	41	1	1 a.m. (16th).	E. by S.	11	10 p.m. (15th).	E.	42	—
			10 p.m. (15th).	E.	42	2							

No. 14. (Cyclonic System, No. XVII.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
April 17–19, 1880.													
Sandwick	8 a.m. (18th).	S.E. by S.	10 a.m. (18th).	S.S.E.	43	9	Midnt. (18th).	S. by E.	16	Noon (18th).	S. by E.	48	—
Stonyhurst.	Noon (18th).	S.S.E.	—	—	—	—	2 p.m. (18th).	S.S.E.	2	Noon (18th).	S.S.E.	31	—
	8 p.m. (18th).	S. by E.	—	—	—	—	11 p.m. (18th).	S. by E.	3	10 p.m. (18th).	S. by E.	34	—
	7 a.m. (19th).	S.S.E.	—	—	—	—	1 p.m. (19th).	S. by E.	6	10 a.m. (19th).	S.	39	—
Holyhead.	4 a.m. (17th).	S. by E.	10 a.m. (17th).	S. by E.	42	2	4 p.m. (17th).	S.W. by S.	12	10 a.m. (17th).	S. by E.	42	—
	1 a.m. (18th).	S. by E.	4 a.m. (18th).	S. by E.	47	19	2 a.m. (19th).	S.S.W.	25	7 a.m. (18th).	S. by E.	51	—
	11 a.m. (19th).	S. by W.	—	—	—	—	7 p.m. (19th).	S.S.W.	8	2 p.m. (19th).	S. by W.	37	—
Armagh	3 a.m. (18th).	S.S.E.	5 a.m. (18th).	S.S.E.	40	1	6 p.m. (18th).	S. by W.	15	1 p.m. (18th).	S. by W.	42	—
			1 p.m. (18th).	S. by W.	42	1							
Valencia	Noon (17th).	S.	2 p.m. (17th).	S.S.E.	40	1	5 p.m. (19th).	S.	53	1 & 8 a.m. (18th).	S.S.E.	58	—
			5 p.m. (17th).	S.E. by S.	48	32							
			9 a.m. (19th).	S.	40	2							
			1 p.m. (19th).	S. by W.	40	1							
Falmouth.	6 a.m. (17th).	S. by E.	—	—	—	—	10 a.m. (17th).	S.W.	4	9 a.m. (17th).	S.S.E.	36	—
	3 a.m. (18th).	S.	11 a.m. (18th).	S. by W.	40	1	8 a.m. (19th).	S.S.W.	29	4 a.m. (19th).	S. by E.	43	—
			3 p.m. (18th).	S. by W.	40	1							
			4 a.m. (19th).	S. by E.	43	1							

No. 15. (Cyclonic System, No. XVIII.)

Stations.	Velocity. 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Apr. 21-22, 1880.													
Glasgow	8 a.m. (21st).	S. by W.	11 a.m. (21st).	S. by W.	40	1	1 p.m. (21st).	S.W.	5	11 a.m. (21st).	S. by W.	40	—
Alnwick Castle.	1 p.m. (21st).	S.S.W.	—	—	—	—	6 p.m. (21st).	S.S.W.	5	2 p.m. (21st).	S.S.W.	36	34 miles were also recorded at 11 a.m. 21st.
										5 p.m. (21st).	S.W.byS.		
Seaham	8 a.m. (21st).	S.	—	—	—	—	10 a.m. (21st).	S.	2	8 a.m. (21st).	S.	31	—
	2 p.m. (21st).	S. by W.	—	—	—	—	5 p.m. (21st).	S. by W.	3	2 p.m. (21st).	S. by W.	33	—
										3 p.m. (21st).	S.S.W.		
	5 a.m. (22nd).	S.W. by S.	—	—	—	—	7 a.m. (22nd).	W. by S.	2	6 a.m. (22nd).	W.S.W.	32	—
Stony-hurst.	Noon (21st).	S.W. by S.	—	—	—	—	4 p.m. (21st).	S.S.W.	4	1 p.m. (21st).	S.W. by S.	33	35 miles were registered at 8 a.m. 21st.
	7 p.m. (21st).	S. by W.	1 a.m. (22nd).	S.	42	2	3 a.m. (22nd).	S.W.	8	2 a.m. (22nd).	S.	42	—
Holyhead	3 a.m. (21st).	S.S.W.	5 a.m. (21st).	S. by W.	45	18	2 a.m. (22nd).	W.N.W.	23	6 p.m. (21st).	S. by W.	53	—
			1 a.m. (22nd).	N.W.	42	1							
Armagh	3 a.m. (21st).	S.	—	—	—	—	Noon (21st).	S.W.byS.	9	11 a.m. (21st).	S.W. by S.	35	—
Valencia	9 p.m. (20th).	S.S.W.	11 p.m. (20th).	S. by W.	49	15	2 p.m. (21st).	S. by W.	17	1 p.m. (21st).	S. by W.	55	—
Falmouth	7 a.m. (21st).	S.W.	—	—	—	—	10 p.m. (21st).	W.S.W.	15	11 a.m. (21st).	S.W.byW.	39	—

No. 16. (Cyclonic System, No. XX.)

May 25-26, 1880.													
Sandwick.	3 a.m. (26th).	S.S.E.	—	—	—	—	7 a.m. (26th).	S. by E.	4	3 & 5 a.m. (26th).	S.S.E.	35	—
	3 p.m. (26th).	S.W.byW.	10 p.m. (26th).	S.W.byW.	40	1	Midt. (26th).	S.W.byW.	9	10 p.m. (26th).	S.W.byW.	40	—
Aberdeen	4 p.m. (26th).	S.W.	—	—	—	—	6 p.m. (26th).	S.W.	2	4 p.m. (26th).	S.W.	35	—
Alnwick Castle.	—	—	10 a.m. (26th).	S.W.	41	2	4 p.m. (26th).	W. by S.	6	11 a.m. (26th).	S.W.	41	—
Holyhead	10 p.m. (25th).	S. by W.	2 a.m. (26th).	S. by W.	44	1	3 p.m. (26th).	S.S.W.	17	2 a.m. (26th).	S. by W.	44	—
Valencia	1 p.m. (25th).	S.E. by S.	5 p.m. (25th).	S.	45	9	3 a.m. (26th).	W.S.W.	14	Midt. (25th).	S.	50	—

TABLE OF ANTICYCLONIC SYSTEMS.—APRIL-MAY 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. V. April 1-4.	No. VI. April 9-13.	No. VII. April 26—May 1.
Form	Uncertain	Irregular	Irregular
Size	Large	Large	Large
Height	Moderate. Max. readings 30·6 inches on 2nd and 3rd.	Moderate. Max. readings 30·48 inches on 9th.	Moderate. Max. readings 30·54 inches on 29th and 30th.
Where first Observed	Northern Scandinavia	North-west of British Isles	Ireland and west coast of Scotland
Direction of Motion	Probably easterly	North-easterly	Easterly
Rate of Motion	Very slow	Slow	Very slow
Regions passed over	Scandinavia and Russia	The British Isles, North Sea, and Scandinavia.	The British Isles and North Sea
Termination	Disappeared beyond the limits of our observations.	Disappeared over Russia	Became dispersed over England
Accompanying Wind	Easterly or South-easterly over Sweden and Norway. Over the British Isles the winds were governed by cyclonic disturbances.	North-easterly, veering to East and South-east; moderate to light.	Northerly over the greater part of the kingdom, but Easterly over southern England and Channel; at times very strong.
" Weather	The weather over the British Isles was not directly influenced by this system of high pressure.	Generally cloudy and dull, with a little rain.	Fine upon the whole, and at times very bright.
REMARKS	The centre of this system was very remote from our Islands, and it therefore exerted but little direct influence upon the weather experienced over Great Britain and Ireland, which was governed by low-pressure areas upon our western coasts.	This system skirted the northern half of the kingdom, and soon established itself over Scandinavia, where it remained for two or three days, before moving still further to the eastward over Russia, and beyond the area embraced by our observations.	This system resulted from the development of an area of high pressure which had existed for some time to the westward or south-westward of our Islands. After it had spread itself over Scotland, it moved southwards a little, and then quickly became dispersed over England.

TABLE OF ANTICYCLONIC SYSTEMS.—MAY–JUNE 1880.

No. VIII. May 4-23.	No. IX. May 28—June 3.	No. X. June 12-18.	No. XI. June 26-29.
Irregular	Irregular	Irregular	Somewhat elliptical.
Large	Large	Large	Large.
Moderate. Max. readings 30·54 inches on the 11th.	Moderate. Max. readings 30·57 inches on 29th, and 30·53 inches on the 1st.	Moderate. Max. readings 30·51 inches on the 14th.	Small. Max. readings 30·4 inches on 27th and 28th.
To the north-west of the British Isles	Over the Bay of Biscay	Over the Baltic	To the south-west of the British Isles.
North-easterly and then south-westerly.	North-easterly then westerly	Irregular	Easterly.
Slow	Slow	Slow	Very slow.
The British Isles and Scandinavia	France, Germany, Scandinavia, and the British Isles.	Scandinavia and the British Isles	Bay of Biscay, France, and the English Channel.
Passed away to the south-westward of England.	Apparently became dispersed to the westward of the British Isles.	Apparently became dispersed to the northward of the British Isles.	Became dispersed over France.
At first Northerly, then veering to East and South-east, and afterwards backing to West and South-west; generally light, but at times blowing very strongly.	Westerly, backing through South to North-east and North; generally moderate in force, but rising to the force of a gale at some exposed stations.	At first Southerly, then variable, then Northerly, veering finally to East, and varying in force from a light to a strong breeze.	Light variable airs, becoming Westerly, and increasing at times to a fresh breeze.
During most of this interval the weather was dry and fine; but towards its close it became less settled, and rain fell in several places, especially in the north and north-west.	Generally overcast and showery over England, but somewhat finer on the whole over Ireland and Scotland.	Generally fine over Scotland and the northern half of England, but cloudy with showers over the remainder of the kingdom.	Generally fine over south-eastern England, but unsettled, and with a good deal of mist and rain in other parts of the United Kingdom.
This system gradually became developed off our western coasts, and after spreading over Ireland and Scotland, extended itself to Scandinavia, where the highest readings were observed. Its centre remained in that region for several hours, after which it returned again towards Great Britain, and continuing to travel in a south-westerly direction, passed over the Bay of Biscay to beyond the southern limits of the area covered by our observations.	During the four days which elapsed between the disappearance of the preceding system and the development of this, an area of high pressure, which may have been an extension to the eastward of the previous system, had existed over the Mediterranean, and had extended itself somewhat towards central Europe. The present system moved up over the west of France to the Channel, and thence over the Netherlands to Sweden, from whence it moved to the westward of the British Isles.	After the area of high pressure had continued for several hours over Finland and the Baltic, an apparently fresh system began to show itself to the south-west of Great Britain, which, moving northwards, extended itself towards the first system and became joined with it. The combined system at first moved south-eastwards, till its centre lay over Scotland, and then quickly became dispersed to the northward of Great Britain.	This system of high pressure was only of brief duration, and reaching the Channel coasts on the 27th it lasted less than 48 hours before it began to rapidly disperse.

NOTES to accompany the TABLES of ANTICYCLONES.

April 5th–8th.—During these four days pressure was uniformly low over nearly the whole of Europe, and it was only in the extreme north-east of Russia that there was any approach to what might fairly be termed a high-pressure area. The anticyclonic system which followed on the 9th developed itself very rapidly over the ocean to the north-west of Great Britain.

April 14th–25th.—During the earlier part of this interval the highest pressures were over south-eastern Europe, where the anticyclone No. VI. was becoming dispersed. A band of high pressure then spread itself westward over central and southern Europe to the ocean beyond.

May 24th–27th.—Pressure continued relatively high over the Mediterranean during these four days.

June 4th–11th.—During the first part of this interval anticyclonic system No. IX. was becoming dispersed to the south-west of Great Britain, and the barometer was consequently highest over the Bay of Biscay and the Peninsula. Later on readings became relatively high over southern and south-eastern Europe.

June 19th–25th.—During this period pressure was fairly uniform all over Europe, and it was nowhere very high, although higher in the south-west of Europe than elsewhere.

SECTION III.

REMARKS FOR APRIL 1880.

(Tables A. to C., with Monthly Wind and Weather Charts.)

Wind.—During the first six days of the month the winds were governed by an area of low pressure lying to the north-west of Great Britain, and consequently they were Westerly over the greater part of the kingdom, but South-westerly or Southerly upon our north-eastern coasts, and generally moderate to strong in force. On the 7th, with the passage of a low-pressure system over England, the wind backed to East over the northern half of Great Britain, and veered to North over Ireland and south-western England; and shortly afterwards it became Northerly or North-easterly generally. On the 11th it veered to East, and in the west for a few hours to South-east, and this continued to be the prevailing direction for a couple of days, when it again backed to North for a short time. On the 15th it increased very much in force, and soon afterwards began to veer through East to South-east and South, which became the prevailing direction on the afternoon of the 16th. This Southerly current continued till the close of the 19th, and for several hours it blew on our western coasts with the force of a gale. On the 20th it veered to West, and for a little while decreased in strength, but next day it freshened again, and South-westerly to Westerly winds and gales continued throughout the 21st. After this a moderate to fresh Westerly current became general till the 24th, when it commenced to veer, and by the following day North had again become the prevailing direction; over the southern counties of England and the Channel it continued to veer to North-east and East, and at times blew very freshly, but this movement did not extend to the greater portion of the kingdom, where the Northerly wind continued till the 29th, when it was succeeded by light anticyclonic airs till the close of the month.

Dealing with the whole month the distribution of winds, as shown upon the monthly wind chart, was fairly uniform; there was a predominance of North-easterly winds observed at a few of the stations, and at most of the stations there was a marked absence of winds from South-east.

Pressure.—The mean pressure for the month was slightly below the average, although its distribution, as shown on the monthly chart, was nearly normal. The lowest mean shown is 29·74 inches at Stornoway, and the highest values, which are about a tenth and a half higher, occurred over the south of England. The range of the mercury was not very great, amounting to an inch and a half in north-east Scotland, but only to about 1·1 inch in south-west England. The barometer reached its lowest point on the 5th–6th, with one of the series of depressions experienced at the beginning of the month, and at Stornoway it fell to below 28·8 inches; but at our observatories (Table A.) the lowest reading recorded was 29·048 inches at Aberdeen. The highest readings occurred on the 29th or 30th, when the centre of an anticyclone (No. VII.) was passing across us. At all the northern stations the mercury rose to above 30·55 inches, but in the south of England the maxima recorded were a tenth of an inch below that point.

Movements of the Depressions.—No very serious cyclonic disturbances passed actually across the British Isles during the month; the only case in which the centre came thus directly under observation being No. XVI., a shallow depression which travelled in a north-westerly direction, from the mouth of the English Channel across Ireland. In every other instance the centres of the systems kept to the westward of our coasts, and followed a northerly, and in one instance (No. XVIII.) a north-easterly, course. In addition to these, however, one or two secondary depressions were observed, the centres of which passed across

the kingdom; and of these that which was observed on the 21st–22nd is a good example. Anticyclonic systems prevailed over or near the British Isles during a considerable portion of the month; their motion was always slow, and generally irregular, but upon the whole they travelled in a more or less easterly direction.

Temperature.—Temperature was upon the whole rather below the average, especially over the southern half of the kingdom; the mean values ranging from between 48° and 49° over southern England and the south of Ireland to about 45° in the north of Scotland. The extreme range of temperature during the month was generally about 30°; at some inland stations it was greater, and at Cambridge amounted to 37°, the largest range reported; on the other hand at most coast stations it was less, and at Scilly it only reached 17°. The highest temperatures were most generally recorded on the 19th or 20th with a cyclonic distribution of pressure; and the lowest as a rule at the close of the month, when an anticyclone lay over the kingdom. The extremes in either direction were not exceptional, 69° at Cambridge being the highest recorded, and 27° at Buxton and Wakefield the lowest. Speaking generally the maxima were about 60°, and the minima not far from the freezing point.

Vapour Tension.—The range exhibited in the means of vapour tension was as a rule slight, and did not amount to half a tenth of an inch. Speaking generally, the values were least over the central districts of the kingdom, where the means were about ·24 inch, while on the coasts they were higher, but only in one or two exceptional cases did they reach ·30 inch. *Relative Humidity* ranged from 80 to 85 per cent. over the greater part of the kingdom, but at a few stations the mean was as high as 90 per cent., and at Stornoway was 95 per cent.

Rainfall.—On the whole the fall of rain was not very different from the average; it was rather above it over the greater part of England, and slightly below in the north of Scotland and at some western stations. The heaviest falls occurred with the depressions experienced at the beginning, and again near the middle of the month, and at a few stations, chiefly in the north and west, these exceeded an inch in 24 hours.

TABLE A., APRIL.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of APRIL 1880, together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).							TEMPERATURE In the Shade (In Degrees Fahrenheit).							HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.					Range.	Mean for the Month.	Extremes.					Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
		Minimum.			Maximum.				Minimum.		Maximum.						
		Reading.	Date.		Reading.	Date.			Reading.	Date.		Reading.	Date.				
	ins.	ins.	D.	H.	ins.	D. H.	ins.	°	°	D. H.		°	D. H.	°	in.	%	ins.
Valencia - -	29·870	29·255	5th,	5 p.m.	30·505	30th, 9 a.m.	1·250	48·5	38·0	11th, 5 a.m.		59·8	29th, 3 p.m.	21·8	·266	78	4·955
Armagh - -	·842	·117	5th,	5 p.m.	·550	29th, 11 p.m.	1·433	45·8	33·4	16th, 0.2 a.m.		58·0	19th, 2 p.m.	24·6	·250	81	4·295
Glasgow - -	·808	·064	5th,	5 p.m.	·550	29th, 10 p.m.	1·486	45·5	33·6	27th, 5 a.m.		57·6	30th, 3 p.m.	24·0	·233	76	3·679
Aberdeen - -	·816	·048	5th,	3 p.m.	·561	29th, 9 p.m.	1·513	44·3	33·5	30th, 5 a.m.		56·5	20th, 4 p.m.	23·0	·233	79	2·905
Falmouth - -	·894	·320	6th,	4 a.m.	·448	30th, 8 a.m. 9 a.m.	1·128	47·9	37·5	30th, 6 a.m.		58·0	3rd, 1 p.m.	20·5	·259	79	2·850
Stonyhurst -	·852	·197	5th, 6th,	Midt. 3 a.m.	·557	29th, Midt.	1·360	45·2	31·2	30th, 5 a.m.		57·6	19th, 4 p.m.	26·4	·231	77	2·038
Kew - -	*29·879	29·273	6th,	5 a.m.	30·446	30th, 7 a.m.	1·173	47·3	34·7	8th, 5 a.m.		61·6	19th, 3 p.m.	29·9	·246	76	1·935

* Means for three days are approximate.

TABLE B., APRIL.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The Values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Means of			Absolute Extremes.			
						Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·782	45·7	43·2	44·5	40·0	49·0	44·5	35·4	26th	57·8	20th
	Dunrobin Castle S	29·811	47·0	43·7	45·4	39·7	51·5	45·6	32·5	30th	56·9	21st
1. SCOTLAND, E.	Braemar S	29·798	41·2	39·9	40·6	35·7	48·2	42·0	25·7	12th	57·3	19th, 30th
	Dundee S	29·820	46·0	42·5	44·3	38·6	51·8	45·2	32·2	9th, 30th	59·7	20th, 30th
	Glenalmond	—	—	—	—	36·5	51·5	44·0	31·0	10th, 27th	59·0	30th
2. ENGLAND, N.E.	Scalham	29·822	47·5	43·9	45·7	39·6	51·5	45·6	32·5	30th	64·7	20th
	Durham*	29·839	47·4	41·4	44·4	36·9	52·9	44·9	30·3	30th	61·1	19th
	York	29·864	46·6	44·9	45·8	39·1	54·5	46·8	29·0	30th	63·0	19th
	Hull	29·879	47·7	44·7	46·2	40·2	55·7	48·0	32·5	30th	67·5	20th
	Kelstern ✠	29·879	45·9	42·3	44·1	38·2	52·0	45·1	30·2	30th	64·3	19th
3. ENGLAND, E.	Hillington ✠	29·874	48·3	43·8	46·1	38·8	54·8	46·8	31·9	6th	67·1	19th
	Geldeston	29·883	48·2	44·6	46·4	40·3	53·7	47·0	35·1	26th	65·4	19th
	Chigwell Row	29·919	48·0	45·1	46·6	40·1	54·8	47·5	33·8	27th	65·5	19th
4. MIDLAND COUNTIES.	Wakefield ✠	29·869	46·7	44·9	45·8	39·2	53·5	46·4	27·2	30th	61·8	17th, 19th
	Buxton ✠	—	42·1	41·6	41·9	34·1	52·6	43·4	26·8	30th	58·9	20th
	Cheadle ✠	29·875	44·1	42·5	43·3	37·9	51·9	44·9	31·4	30th	58·8	3rd
	Leicester	29·868	46·9	45·5	46·2	39·9	53·7	46·8	32·5	30th	64·2	19th
	Uppingham	29·878	45·6	42·8	44·2	38·5	53·3	45·9	32·1	27th	64·5	19th
	Oscott	29·876	45·5	43·7	44·6	38·7	52·9	45·8	30·5	30th	61·1	19th
	Churchstoke ✠	29·895	44·9	42·9	43·9	37·3	51·5	44·4	27·9	30th	59·0	2nd
	Cheltenham ✠	29·889	47·0	44·7	45·9	38·8	53·4	46·1	27·5	30th	61·3	19th
5. ENGLAND, S.	Marlborough ✠	29·900	46·4	43·5	45·0	38·9	53·8	46·4	31·2	27th	62·2	19th
	Strathfield Turgiss ✠	29·898	49·5	44·5	47·0	39·0	55·5	47·3	32·1	26th	65·5	19th
	Ramsgate ✠	29·903	49·1	46·5	47·8	42·1	53·7	47·9	37·2	29th	62·8	19th
	Folkestone	—	—	—	—	—	—	—	—	—	—	—
	Southampton	29·889	48·8	46·2	47·5	40·9	55·2	48·1	34·7	27th	62·2	19th
	St. Leonards	29·896	48·7	45·9	47·3	42·5	52·7	47·6	37·7	27th	59·1	25th
6. SCOTLAND, W.	Laudale	29·795	46·8	45·7	46·3	40·0	52·3	46·2	31·9	27th	63·0	30th
	Rothesay S	29·830	47·5	44·0	45·8	39·4	53·3	46·4	33·2	27th	62·1	28th
	Pinmore S	—	—	—	—	—	—	—	—	—	—	—
7. ENGLAND, N.W.	Scaleby ✠	29·833	46·1	43·3	44·7	37·5	52·7	45·1	29·0	2nd	60·0	17th
	Douglas (Isle of Man)	29·842	47·4	44·3	45·9	39·9	51·3	45·6	31·0	27th, 30th	55·3	2nd
	Llandudno ✠	29·857	47·9	46·5	47·2	42·4	52·0	47·2	34·0	14th	59·8	19th
8. ENGLAND, S.W.	St. David's	29·871	47·4	45·7	46·6	42·1	51·1	46·6	32·5	30th	54·9	2nd, 24th
	Caermarthen ✠	29·871	48·2	44·9	46·6	40·3	53·9	47·1	33·2	30th	59·8	2nd
	Dartmoor ✠	29·883	42·2	40·6	41·4	37·2	46·9	42·1	31·5	27th	52·0	20th, 23rd
	Babbacombe ✠	29·892	48·2	45·8	47·0	41·4	53·8	47·6	37·0	27th, 30th	62·0	23rd
9. IRELAND, N.	Londonderry	29·839	48·9	44·0	46·5	38·6	53·1	45·9	32·5	9th	62·7	30th
	Brookeborough	29·810	45·5	44·2	44·9	37·8	53·2	45·5	27·8	27th	60·5	28th
	Markree Castle	29·837	47·8	44·1	46·0	38·4	53·5	46·0	27·6	27th	58·0	19th
10. IRELAND, S.	Dublin	29·861	48·4	46·4	47·4	42·2	53·3	47·8	37·3	27th	58·6	19th, 20th
	Parsonstown	29·873	47·4	43·6	45·5	38·1	54·4	46·3	29·5	27th	59·8	19th
CHANNEL	Jersey (St. Aubin's)	29·926	49·8	46·6	48·2	43·5	54·3	48·9	39·0	6th	59·3	16th

NOTE.—The stations marked thus ✠ are in connection with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of APRIL 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·254	·245	·250	83	88	86	5·7	6·4	6·1	1·720	·450	24th	18	1	0	0	4	7	4	8	1	2	11	11	4	7	11	5
·279	·262	·271	87	92	89	—	—	—	1·900	·300	24th	17	1	0	0	—	—	0	1	11	13	8	0	8	11	8	0
·210	·212	·211	81	86	83	7·2	6·4	6·8	3·020	·760	18th	20	3	0	0	0	7	1	4	10	6	8	7	11	2	12	0
·246	·234	·240	80	86	83	8·1	8·4	8·3	2·550	·950	21st	15	1	2	1	0	20	4	2	12	6	6	4	11	8	11	0
—	—	—	—	—	—	—	—	—	3·534	·870	21st	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·271	·249	·260	83	87	85	6·9	4·2	5·6	2·028	·408	6th	16	0	2	3	2	4	0	8	6	1	3	10	10	7	2	13
·262	·244	·253	80	93	87	8·3	5·7	7·0	2·028	·368	25th	16	0	1	1	1	12	0	5	16	3	2	12	12	5	4	1
·252	·245	·249	80	83	82	7·0	4·5	5·8	2·300	·700	3rd	19	0	2	3	2	8	1	12	8	6	1	15	5	11	2	0
·266	·251	·259	81	86	84	7·3	3·9	5·6	1·440	·250	3rd	15	0	0	2	3	6	0	2	16	6	1	1	12	9	8	5
·261	·241	·251	85	89	87	7·5	4·8	6·2	2·467	·414	3rd	16	0	2	3	2	9	1	3	16	5	2	7	15	7	4	1
·271	·249	·260	81	87	84	8·2	6·2	7·2	2·844	·675	2nd	22	0	0	3	1	12	0	3	13	4	5	4	16	10	4	1
·263	·254	·259	78	86	82	6·9	4·9	5·9	1·640	·420	3rd	17	0	3	5	7	9	0	3	17	8	1	4	14	10	2	1
·269	·252	·261	80	84	82	7·9	4·4	6·2	2·000	·550	14th	15	0	4	3	3	7	0	3	10	8	2	6	11	10	4	6
·247	·241	·244	78	81	79	7·8	4·8	6·3	1·960	·520	3rd	12	0	0	2	1	5	1	11	8	6	5	8	9	12	1	0
·245	·240	·243	91	91	91	7·5	4·4	6·0	2·226	·520	3rd	8	0	1	1	0	6	0	0	6	15	0	1	0	26	12	0
·236	·231	·234	82	85	83	8·4	5·1	6·8	1·430	·310	15th	14	0	2	4	2	13	6	4	13	9	2	9	7	8	6	2
·253	·245	·249	80	81	81	8·1	5·1	6·6	1·570	·340	3rd	21	0	0	2	1	11	0	2	22	1	1	4	18	7	1	4
·268	·249	·259	88	90	89	8·5	5·9	7·2	1·911	·276	3rd	22	1	2	4	1	15	2	2	16	4	1	10	8	12	3	4
·246	·245	·246	81	86	83	8·4	5·5	7·0	1·390	·440	15th	16	1	3	3	3	15	5	9	15	4	1	9	13	6	3	0
·237	·237	·237	79	85	82	7·9	5·4	6·7	1·490	·345	3rd	16	2	3	2	1	10	0	6	10	8	3	5	8	13	4	3
·257	·249	·253	79	84	82	7·9	4·5	6·2	1·880	·350	3rd	18	0	1	0	1	10	0	9	12	3	1	9	10	8	5	3
·251	·243	·247	80	86	83	7·9	4·5	6·2	2·530	·500	14th	19	0	3	1	3	11	0	1	13	4	0	5	15	5	2	15
·268	·249	·259	76	84	80	7·4	4·2	5·8	1·735	·418	14th	13	0	3	2	5	8	0	3	16	8	0	4	5	16	8	0
·313	·300	·307	89	94	92	6·4	6·3	6·4	1·530	·570	15th	10	0	0	0	4	10	0	1	12	11	0	12	15	6	0	3
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·267	·254	·261	78	81	79	7·6	5·6	6·6	1·786	·323	14th	17	0	4	2	2	14	0	2	23	2	3	4	14	5	7	0
·278	·266	·272	81	86	83	6·2	4·8	5·5	2·235	·472	14th	13	0	3	1	5	9	2	4	18	4	3	3	13	10	3	2
·241	·248	·245	76	81	78	6·6	6·7	6·7	7·350	1·540	18th	17	7	1	0	3	13	1	6	1	10	6	11	8	8	2	8
·260	·252	·256	79	87	83	—	—	—	3·637	·520	3rd	23	0	1	1	—	—	1	1	6	7	6	8	9	10	7	6
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·253	·235	·244	81	83	82	4·5	5·0	4·8	1·950	·230	20th	18	2	0	0	1	12	2	4	10	8	0	1	27	0	3	7
·272	·261	·267	83	89	86	6·8	5·3	6·1	3·214	·825	1st	17	0	1	1	3	9	2	0	12	7	5	8	5	11	8	4
·260	·262	·261	78	83	80	7·9	4·4	6·2	1·237	·387	3rd	12	0	0	0	3	11	2	4	6	14	3	3	6	21	3	0
·268	·276	·272	82	90	86	6·4	4·8	5·6	2·939	·883	15th	17	0	2	0	2	7	6	7	11	6	4	5	11	10	5	1
·273	·268	·271	81	89	85	7·0	5·5	6·3	2·670	·480	3rd	16	0	3	0	2	11	2	5	6	13	5	3	7	13	4	4
·242	·243	·243	90	95	92	8·0	6·9	7·5	6·480	1·350	5th	18	1	4	1	2	18	2	3	10	10	3	3	13	10	5	3
·271	·259	·265	80	84	82	7·1	5·9	6·5	1·870	·510	5th	18	1	5	0	3	11	3	5	17	6	0	5	13	9	4	1
·275	·255	·265	80	88	84	7·1	5·3	6·2	3·725	·485	5th	23	0	0	0	2	9	0	2	11	4	2	11	9	12	5	4
·266	·248	·257	88	85	87	7·5	6·2	6·9	4·488	·782	21st	20	0	0	0	1	13	2	5	11	1	3	4	7	9	7	13
·267	·243	·255	80	84	82	8·1	5·8	7·0	2·761	·423	20th	21	0	2	0	2	11	0	10	4	2	4	3	6	7	5	19
·261	·252	·257	77	80	78	6·2	4·2	5·2	1·832	·746	15th	20	0	6	2	1	5	0	6	10	6	3	4	4	19	7	1
·262	·245	·254	80	86	83	7·5	4·7	6·1	4·063	·703	21st	22	0	4	0	6	13	5	6	3	4	2	7	12	10	7	9
·287	·274	·281	80	86	83	7·0	5·3	6·2	1·897	·484	14th	16	0	2	1	4	10	0	1	19	3	2	5	11	12	2	5

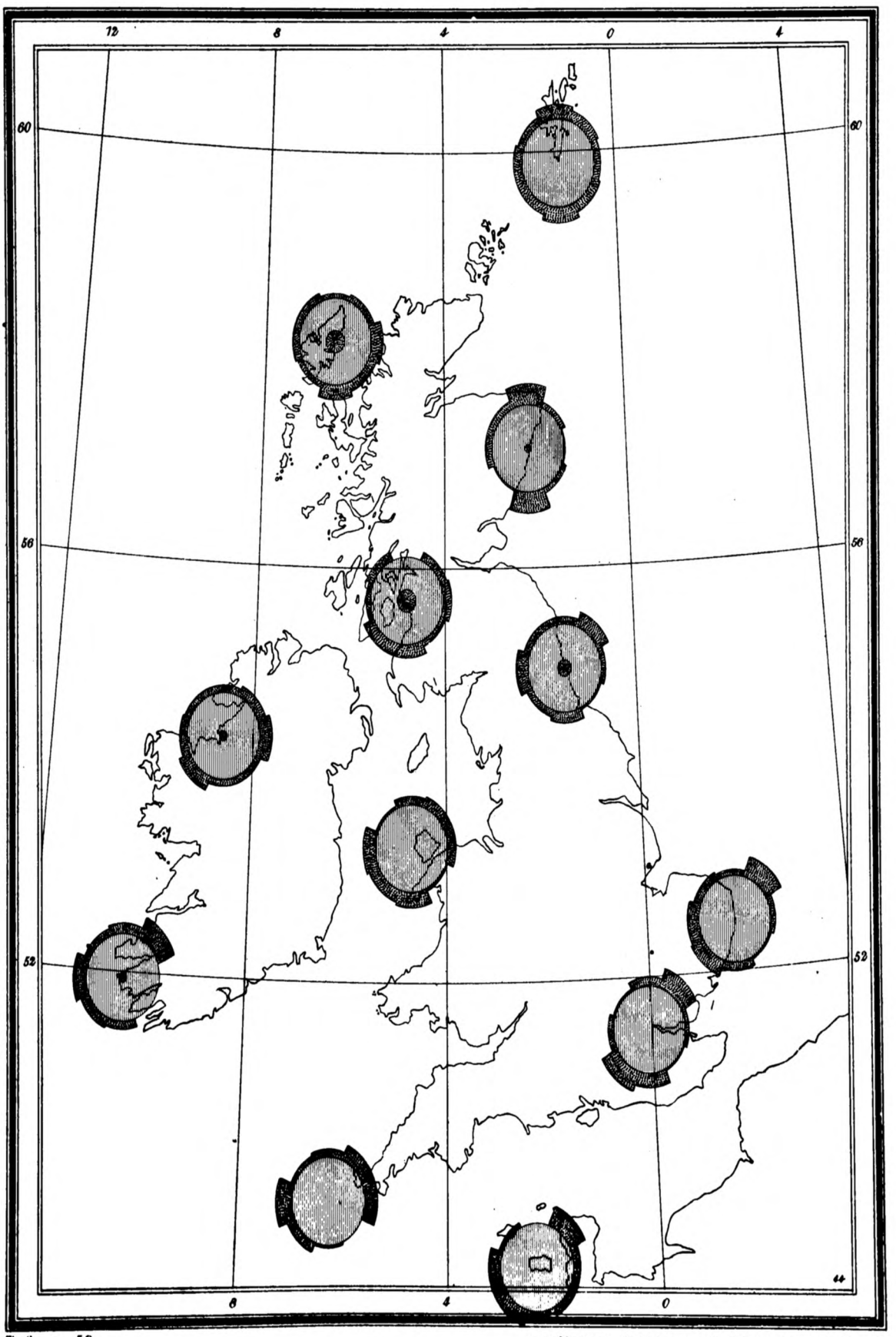
TABLE C., APRIL.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS during the Month of APRIL 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of								
			At 8 a.m.	Means of			Absolute Extremes.							Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
				Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.																						
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND N.	Sumburgh Head	29·785	44·1	39·6	48·0	43·8	34	9th, 15th	53	17th, 19th	0·243	83	7·6	2·04	0·42	3rd	21	0	0	0	0	12	4	5	4	3	4	6	3	3	2	0
	Wick	29·778	45·2	38·9	50·8	44·9	30	9th	58	20th	·255	85	6·3	1·26	0·25	24th	16	0	0	0	6	13	1	5	1	1	5	6	3	1	8	0
	Stornoway	29·736	44·2	39·1	48·7	43·9	33	9th	53	20th, 29th	·274	95	6·5	2·06	0·40	21st	17	0	1	0	2	12	8	2	3	5	3	5	2	3	3	4
1. SCOTLAND, E.	Nairn	29·779	44·2	38·8	52·2	45·5	30	13th	60	20th	·230	79	6·3	1·10	0·20	21st	16	0	1	0	5	12	1	0	3	4	2	1	5	7	4	4
	Aberdeen	29·805	44·8	40·1	51·2	45·7	32	30th	58	20th	·249	84	6·8	3·10	1·03	21st	20	0	2	0	2	12	3	8	2	1	2	9	1	3	3	1
	Leith	29·798	45·4	38·2	53·5	45·9	31	9th	62	20th	·249	83	6·7	2·45	0·84	21st	18	0	3	0	1	14	0	3	3	4	3	2	5	4	6	0
2. ENGLAND, N.E	Shields	29·824	44·3	40·2	50·9	45·6	34	30th	60	20th	·249	85	7·6	1·46	0·24	6th	17	0	2	1	2	16	12	3	6	2	1	4	3	6	3	2
	York	29·851	45·1	39·1	54·6	46·9	29	30th	63	19th	·242	81	7·3	2·30	0·69	3rd	19	0	0	0	5	16	0	7	4	2	0	10	2	4	1	0
	Spurn Head	29·841	45·4	41·7	51·0	46·4	37	6th	61	19th	·267	89	6·9	1·70	0·40	4th	18	0	0	1	1	14	2	5	6	1	1	5	8	3	1	0
3. ENGLAND, E.	Yarmouth	29·863	46·3	1·4	50·9	46·2	36	7th	59	20th, 21st, 23rd.	·268	86	5·9	2·15	0·46	15th	15	0	3	4	8	8	1	2	8	2	1	3	6	5	3	0
	Cambridge	29·866	45·9	38·7	56·6	47·7	32	6th, 27th	69	19th	·266	87	7·4	1·84	0·44	14th	17	0	1	2	3	18	0	4	6	2	0	8	6	1	3	0
4. MIDLAND COUNTIES.	Nottingham	29·874	46·6	38·6	55·6	47·1	30	30th	66	20th	·252	80	7·4	1·25	0·33	3rd	14	0	1	4	4	16	0	7	6	0	0	6	7	1	2	1
	Oxford	29·874	45·1	39·5	55·0	47·3	33	27th, 28th	66	20th	·246	82	7·4	1·90	0·49	14th	21	1	1	2	7	20	0	4	6	3	0	4	5	8	0	0
5. ENGLAND, S.	London	29·878	47·6	41·1	56·2	48·7	34	7th, 8th	67	19th	·251	76	6·4	2·56	0·78	14th	18	0	3	2	4	11	1	3	8	2	1	5	8	2	1	0
	Dover	29·870	47·5	43·5	51·8	47·7	40	11th, 26th	60	19th	·262	80	5·1	2·21	0·48	15th	18	0	2	1	1	5	1	1	9	3	0	0	7	9	1	0
	Hurst Castle	29·867	45·9	43·3	51·2	47·3	32	27th	59	25th	·288	94	5·5	1·98	0·39	8th	14	0	1	1	3	8	2	1	7	5	1	1	5	7	3	0
6. SCOTLAND, W.	Ardrossan	29·800	45·3	40·6	51·7	46·2	34	27th	59	8th	·254	84	6·3	3·78	1·22	21st	20	0	0	0	3	11	2	0	3	4	2	5	5	2	4	5
7. ENGLAND, N.W	*Hawes Junction	29·583	40·2	35·1	47·1	41·1	26	30th	56	17th	·226	91	8·1	3·17	0·33	4th	21	2	6	2	1	20	4	3	5	3	1	4	6	6	1	1
	Barrow-in-Furness	29·796	44·8	41·3	53·0	47·2	235	14th, 15th, 30th.	59	28th	·245	83	6·2	1·73	0·32	3rd	14	0	0	0	2	11	4	4	8	1	3	3	7	1	3	0
	Liverpool	29·840	45·9	41·5	52·4	47·0	36	30th	62	19th	·245	80	6·2	1·04	0·33	3rd	11	0	0	0	8	13	0	2	6	3	5	1	7	5	1	0
	Holyhead	29·834	46·1	43·3	50·2	46·8	37	14th	54	19th, 20th	·264	85	6·6	1·63	0·38	18th	14	0	1	0	2	9	2	3	4	4	1	6	5	6	1	0
8. ENGLAND, S.W.	Pembroke	29·852	45·4	42·5	50·3	46·4	37	10th, 11th, 30th.	54	28th	·269	89	6·0	2·16	0·45	15th	17	0	1	0	3	8	4	3	7	3	2	1	5	7	2	0
	Prawle Point	29·861	45·9	41·7	52·2	47·0	35	27th	62	25th	·277	91	7·2	1·68	0·31	5th	11	0	1	1	1	15	0	3	11	0	0	4	7	2	3	0
9. IRELAND, N.	Donaghadee	29·822	46·3	40·9	52·2	46·6	35	14th	58	20th	·276	89	4·9	3·16	1·22	21st	18	1	0	0	3	8	5	3	5	4	0	5	6	4	3	0
	Mullaghmore	29·799	46·2	42·0	52·3	47·2	36	18th	58	28th	·278	90	6·6	3·40	0·42	20th	22	0	4	0	7	11	12	3	4	5	2	2	6	4	3	1
10. IRELAND, S.	Valencia	29·868	48·3	42·9	54·4	48·7	36	11th	60	29th	·257	77	7·1	4·92	1·01	21st	19	0	0	0	2	10	8	4	9	0	0	3	4	6	3	1
	Roche's Point	29·857	46·5	42·1	55·3	48·7	38	27th	61	28th	·253	80	5·0	3·96	0·76	17th	17	1	0	0	1	5	7	4	6	2	1	1	3	9	4	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·877	49·0	45·2	51·9	48·6	41	15th, 16th	58	19th	·308	89	7·4	3·68	0·97	14th	16	0	1	2	2	12	10	3	6	6	0	1	4	8	2	0
	Jersey	29·867	47·4	43·9	52·7	48·3	39	6th, 11th	59	19th	·288	89	6·8	1·97	0·55	14th	19	0	1	1	1	10	9	0	8	3	3	2	6	6	2	0

* Hawes Junction is 1,135 feet above Mean Sea Level and the barometric observations at this station are not reduced for altitude.

Monthly Wind Chart for April 1880.



To face p. 58.

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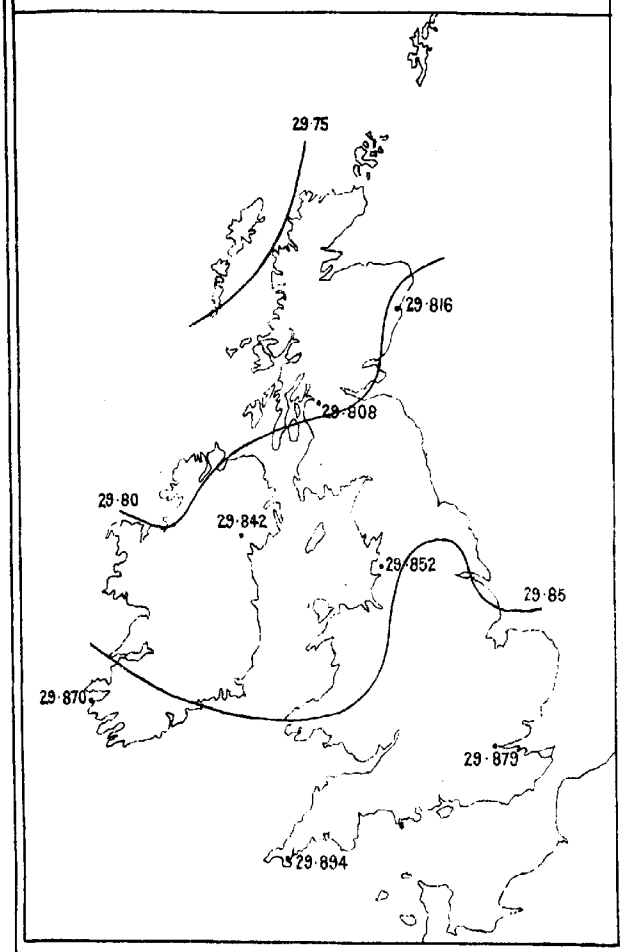
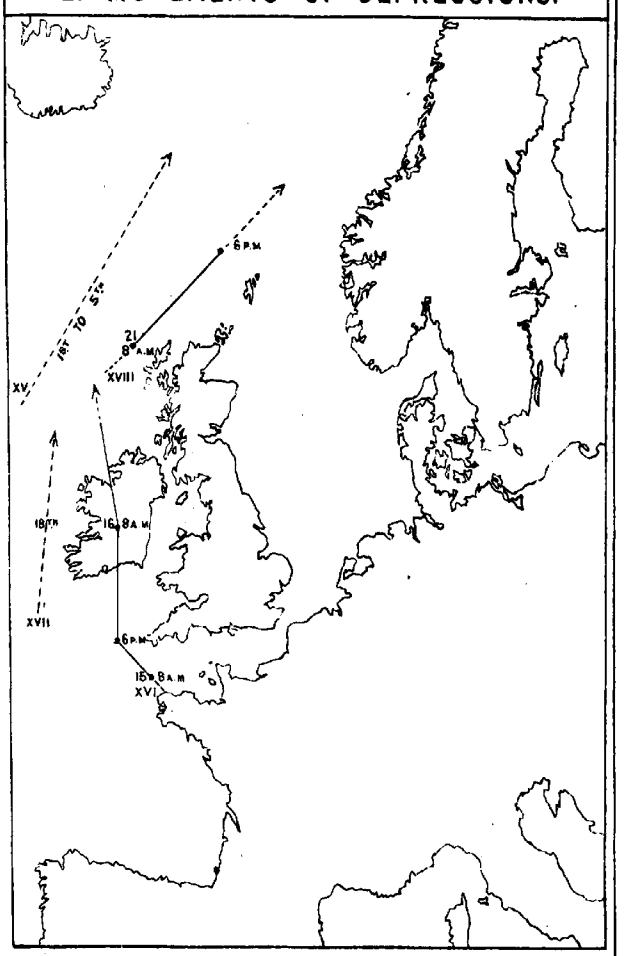
Monthly Weather Chart April 1880.

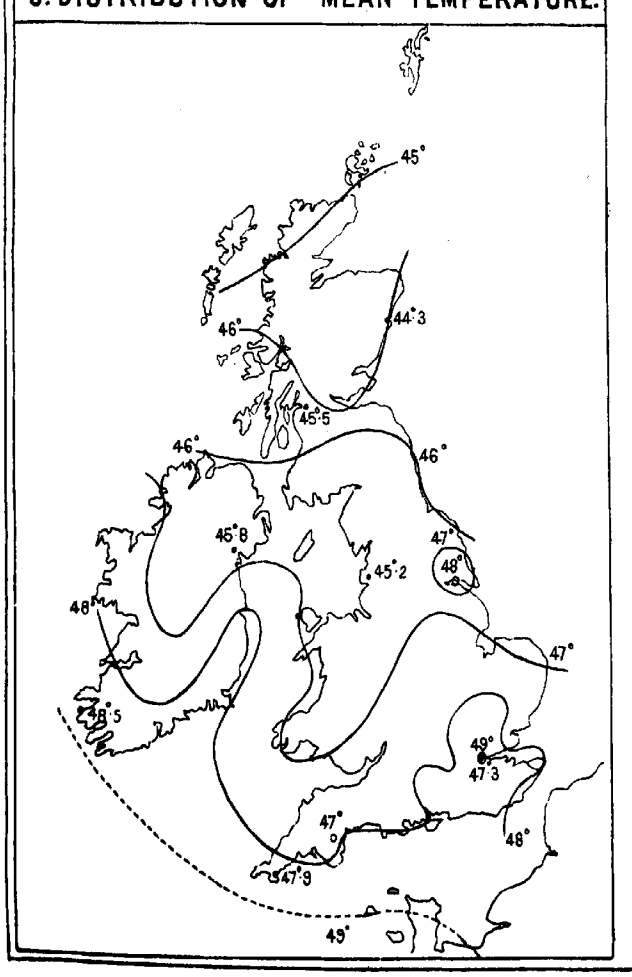
1. Distribution of Mean Pressure.



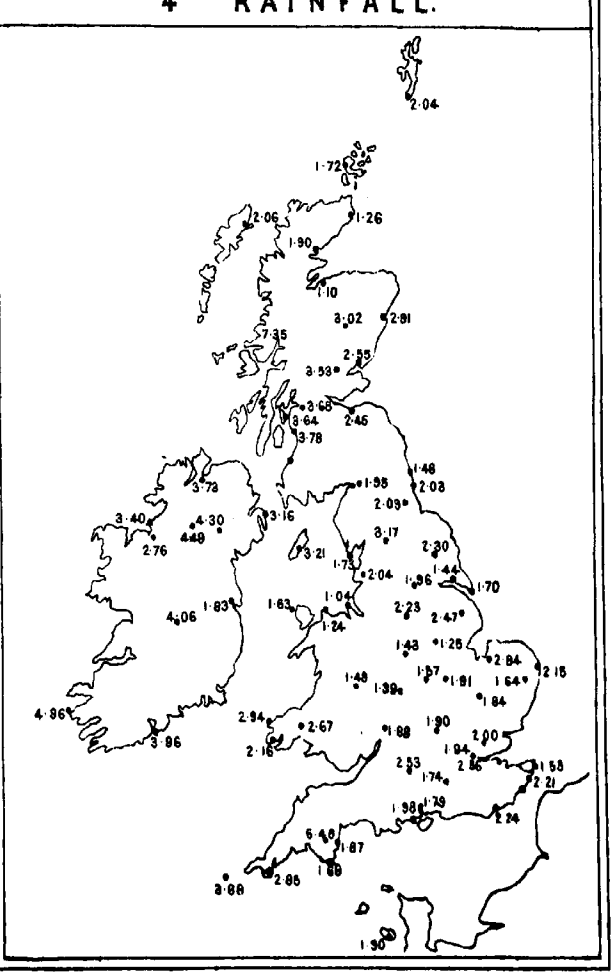
2. Movements of Depressions.



3. Distribution of Mean Temperature.



4 Rainfall.



To follow Wind Chart for April.

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REMARKS FOR MAY 1880.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—On the 1st light anticyclonic airs prevailed over the whole of the United Kingdom, except in the extreme north, in which district a moderate wind blew from the Westward. After a few hours the general direction became Northerly, and over the south of England it veered still more to North-east and East; the force increasing to a moderate or fresh breeze. Very little further change occurred for several days, till on the 11th an Easterly wind became general, and continued to blow for a week, the force becoming occasionally rather strong over the Channel and the adjoining coasts. This was followed by a few hours of rather variable winds, which, however, gradually drew into a steady North-westerly current by the morning of the 20th. Two days later it backed to the Westward; and while it blew freshly everywhere, at some stations the force became very strong for a short time. This Westerly current continued to blow throughout nearly the whole of the remainder of the month, the only changes being an occasional veering or backing through a few points, and the force throughout this period was generally moderate. On the 30th a retrograde movement began; at first the wind backed to South-west and for a few hours freshened considerably in force, after which it continued to back to South-east and then to East, which had become the prevailing direction by the close of the month.

The monthly wind chart exhibits a marked predominance of the North-easterly current over the southern half of the kingdom; while it also shows that further north there was a more uniform distribution of wind directions from all the northern points of the compass, combined with a small percentage of observations from southern points.

Pressure.—The mean pressure was above the average for May in all parts of the British Isles. Over Ireland, Wales, and the whole of central England its distribution was exceedingly uniform; and the values were also higher in those districts than elsewhere, being about a tenth of an inch above the lowest mean, which was 30·01 inches at Sumburgh Head. The maximum readings of the month occurred in England and Ireland with anti-cyclonic system No. IX., the mercury rising to 30·55 ins. in the south-west of England on the 29th; in Scotland, however, the barometer was not so high then as it had been earlier in the month, during the continuance of anticyclonic system No. VIII. No very low readings occurred, the lowest being 29·29 at Aberdeen on the 24th, during the passage of depression No. XIX., and the minima were recorded at most other stations at about the same time. The extreme range of readings recorded was small, and it was only in Scotland that it amounted to an inch; at Aberdeen it was 1·13 inch.

Movements of the Depressions.—Anticyclonic conditions prevailed during the greater part of the month, and the number of depressions which were experienced was not only very small, but in every case their centres kept beyond our western coasts, so that their paths could only be imperfectly determined. As far as could be observed, however, their course was generally to the north-eastward. The first of the two anticyclonic systems experienced approached us from the north-west, while its successor was first observed over the Bay of Biscay; both, after extending themselves over the British Isles, finally became dispersed over the ocean to the westward of our shores.

Temperature.—Although the mean temperature was slightly below the average over the English midlands, yet, dealing generally with the whole kingdom, it was nearly normal, the values ranging from about 48° in the north of Scotland to 53° along the south coast of England, and 54° in the south of Ireland. The range of temperature was, however, very

large in some districts, owing to the low minima recorded at the beginning of the month, and also to the high maxima registered about three weeks later on. During the first period the thermometer fell to below 29° at several stations, and to below the freezing point over the greater part of eastern and central England, whilst on the 26th the mercury rose to 86° in the shade in London, to 87°·5 at Greenwich, and to above 80° over the greater part of south-eastern England. The maximum at Greenwich was the highest ever recorded there in May.

Vapour Tension.—The mean values of the tension of vapour varied considerably. Over eastern Scotland it was less than a quarter of an inch, whilst at Scilly it amounted to ·35 inch, but over the greater portion of England and Ireland the mean was about 0·3 inch. *Relative Humidity* showed still less uniformity in the distribution of its mean values, which varied at different stations from 70 per cent. to 92 per cent.

Rainfall.—The month was a dry one, the fall of rain being below the average at most of our stations. A heavy fall took place over England and Wales on the 26th, and upwards of an inch was measured on that day at several stations, in some cases by far the greater part of the precipitation of the month occurring within those 24 hours.

TABLE A., MAY.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of MAY 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

Names of Observatories.	Pressure at 32° F. and the Mean Sea Level (In English Inches).						Temperature In the Shade (In Degrees Fahrenheit).						Hygrometric Values.		Rainfall (In English Inches).
	Mean for the Month.	Extremes. Minimum. Reading.	Minimum. Date.	Extremes. Maximum. Reading.	Maximum. Date.	Range.	Mean for the Month.	Extremes. Minimum. Reading.	Minimum. Date.	Extremes. Maximum. Reading.	Maximum. Date.	Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
	ins.	ins.	D. H.	ins.	D. H.	ins.	°	°	D. H.	°	D. H.	°	in.	%	ins.
Valencia - -	30·128	29·687	23rd, Midt.	30·500	29th, 1 a.m.	·813	53·0	40·6	18t, 5 a.m.	71·9	15th, 3 p.m.	31·3	·299	74	2·408
Armagh - -	·129	·495	24th, 4 a.m.	·470	29th, 9 a.m.	·975	50·2	34·0	8th, 5 a.m.	68·2	18th, 3 p.m.	34·2	·276	77	1·120
Glasgow - -	·086	·369	24th, 4 a.m.	·403	9th, 7 a.m. } 8 a.m. }	1·034	49·7	35·7	9th, 5 a.m.	69·2	19th, 4 p.m.	33·5	·254	71	0·902
Aberdeen -	·085	·287	24th, 9 a.m.	·420	15th, 9 a.m.	1·133	48·3	34·7	14th, 4 a.m.	65·2	19th, 4 p.m.	30·5	·245	72	0·790
Falmouth - -	·108	·719	3rd, 3 p.m. } 5 p.m. }	·546	29th, 8 a.m. } 9 a.m. }	·827	52·6	40·8	2nd, 6 a.m.	67·0	15th, 6 p.m.	26·2	·295	75	1·230
Stonyhurst - -	·108	·566	24th, 5 a.m. } 6 a.m. }	·463	29th, Noon	·897	49·6	*32·9	7th, ?	66·8	20th, 1 p.m.	33·9	·257	72	2·838
Kew - -	30·089	29·686	27th, 6 a.m.	30·487	29th, 8 a.m.	·801	51·9	32·2	2nd, 5 a.m.	†81·0	26th, 2 p.m.	48·8	·267	70	0·280

* Corrected reading of Phillips' minimum thermometer.

† Approximate reading, trace very faint.

TABLE B., MAY.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Means of			Absolute Extremes.			
						Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	30·042	48·5	45·7	47·1	42·6	52·0	47·3	36·7	7th	57·2	31st
	Dunrobin Castle S	30·075	51·3	47·5	49·4	42·6	55·9	49·3	33·3	3rd	61·4	20th
1. SCOTLAND, E.	Braemar S	30·072	47·3	44·8	46·1	37·8	55·9	46·9	27·9	9th	68·7	21st
	Dundee S	30·092	51·1	46·4	48·8	41·8	58·2	50·0	34·2	7th	73·7	19th
	Glenalmond	30·099	49·2	46·7	48·0	39·6	57·2	48·4	30·4	9th	73·4	21st
2. ENGLAND, N.E.	Seaham	30·103	51·9	47·0	49·5	41·9	55·4	48·7	33·6	17th	68·2	25th
	Durham*	30·098	52·6	43·5	48·1	38·6	57·4	48·0	28·4	8th	68·8	19th
	York	30·119	51·3	48·3	49·8	40·9	59·1	50·0	32·0	7th	68·0	19th, 20th
	Hull	30·120	52·0	47·9	50·1	42·5	59·5	51·0	35·0	7th, 8th	67·5	30th
	Kelstern ✠	30·118	50·1	45·2	47·7	40·4	55·8	48·1	32·2	1st	69·6	21st
3. ENGLAND, E.	Hillington ✠	30·097	53·6	46·5	50·1	41·2	59·7	50·5	28·9	1st	74·7	26th
	Geldeston	30·095	53·1	47·0	50·1	41·9	58·0	50·0	32·5	2nd	81·7	26th
	Chigwell Row	30·126	54·4	49·0	51·7	42·6	62·8	52·7	35·0	1st	85·0	26th
4. MIDLAND COUNTIES.	Wakefield ✠	30·124	50·8	48·6	49·7	41·2	58·3	49·8	31·2	1st, 7th	66·0	19th
	Buxton ✠	—	47·3	45·1	46·2	36·2	57·1	46·7	28·3	9th	61·5	30th
	Cheadle ✠	30·112	49·1	46·7	47·9	40·5	56·9	48·7	34·4	7th	63·1	25th
	Leicester	30·103	51·8	50·2	51·0	42·1	59·1	50·6	32·1	1st	69·2	26th
	Uppingham	30·107	51·6	46·6	49·1	41·3	60·4	50·9	34·0	1st	71·9	20th
	Oscott	30·112	50·1	48·0	49·1	41·6	58·8	50·2	34·1	9th	69·2	26th
	Churchstoke ✠	30·134	50·1	47·9	49·0	40·2	58·1	49·2	30·0	1st	67·1	20th
	Cheltenham ✠	30·112	52·7	49·0	50·9	40·2	60·7	50·5	28·2	1st	72·5	21st
5. ENGLAND, S.	Marlborough ✠	30·112	53·3	49·0	50·7	41·4	61·6	51·5	29·3	1st	74·9	21st
	Strathfield Turgiss ✠	30·108	54·8	49·9	52·4	40·5	63·9	52·2	28·3	1st	79·1	26th.
	Ramsgate ✠	30·095	54·1	49·5	51·8	45·0	60·5	52·8	40·0	29th.	80·0	26th
	Folkestone	30·084	54·2	47·6	50·9	43·5	59·6	51·6	32·8	8th	74·8	26th
	Southampton	30·089	55·0	51·6	53·3	43·3	64·0	53·7	33·7	2nd	78·1	14th
	St. Leonards	30·084	53·9	49·6	51·8	45·5	60·0	52·8	36·8	1st	75·0	15th
6. SCOTLAND, W.	Laudale	30·095	50·8	48·7	49·8	42·4	55·9	49·2	33·0	8th	65·0	1st
	Rothesay S	30·115	51·4	48·2	49·8	42·2	58·6	50·4	34·4	3rd	64·1	10th, 17th
	Pinmore S	—	—	—	—	—	—	—	—	—	—	—
7. ENGLAND, N.W.	Scaleby ✠	30·104	50·9	47·4	49·2	40·4	57·3	48·9	29·8	9th	70·0	20th
	Douglas (Isle of Man)	30·112	51·4	47·9	49·7	44·1	56·1	50·1	33·0	8th	64·3	19th
	Llandudno ✠	30·116	52·2	50·4	51·3	45·0	56·2	50·6	36·4	1st	62·8	19th
8. ENGLAND, S.W.	St. David's	30·112	53·0	49·3	51·2	45·1	57·0	51·1	38·3	8th	69·5	15th
	Caermarthen ✠	30·105	54·7	50·0	52·4	42·9	60·2	51·6	32·6	2nd	68·9	21st
	Dartmoor ✠	30·098	49·3	45·5	47·4	40·2	55·8	48·0	32·0	1st	68·0	20th
	Babbacombe ✠	30·102	53·3	50·8	52·1	44·8	60·3	52·6	34·3	1st	75·1	21st
9. IRELAND, N.	Londonderry	30·132	52·5	48·3	50·4	42·2	58·5	50·4	30·4	8th	68·5	18th
	Brookeborough	30·102	49·7	49·1	49·4	41·3	59·2	50·3	29·8	8th	68·9	18th
	Markree Castle	30·120	51·6	48·1	49·9	41·9	58·3	50·1	30·8	5th	66·8	17th
10. IRELAND, S.	Dublin	30·135	52·3	51·6	52·0	46·0	58·2	52·1	38·2	3rd	69·4	19th
	Parsonstown	30·141	52·6	49·0	50·8	43·2	60·2	51·7	32·5	9th	72·2	20th
CHANNEL	Jersey (St. Aubin's)	30·099	55·4	50·9	53·2	46·5	60·4	53·5	40·2	8th	75·5	26th

NOTE.—The stations marked thus ✠ are in connexion with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of MAY 1880.
corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER. No. of Days of							WIND. No. of observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·261	·256	·259	77	84	81	5·6	5·9	5·8	1·660	·230	18th	18	3	6	1	5	10	2	9	4	3	5	4	8	13	11	5
·325	·295	·310	85	92	88	—	—	—	1·200	·250	23rd	13	0	0	0	—	—	2	8	6	9	5	0	8	17	9	0
·241	·227	·234	74	76	75	5·6	5·6	5·6	0·620	·150	24th	10	1	0	0	0	2	0	12	7	9	2	3	20	4	5	0
·268	·249	·259	72	79	76	8·2	8·1	8·2	0·600	·250	2nd, 30th	4	0	1	0	0	18	4	1	12	7	9	1	11	12	9	0
·242	·256	·249	69	80	74	7·2	6·3	6·8	1·331	·842	30th	7	0	0	0	2	12	0	4	6	8	3	4	16	6	5	10
·294	·280	·287	76	87	82	5·2	5·3	5·3	1·404	·736	26th	8	0	0	0	4	4	0	10	15	2	4	1	8	5	2	17
·297	·256	·277	75	90	82	7·2	5·9	6·6	1·499	·730	26th	8	0	1	0	4	13	0	8	17	4	2	8	10	5	6	2
·275	·274	·275	73	81	77	6·5	5·4	6·0	2·120	1·110	26th	11	0	0	0	3	10	1	14	11	9	1	9	4	11	3	0
·279	·278	·279	72	84	78	7·1	6·6	6·9	1·470	·680	26th	11	0	0	0	2	16	0	2	24	8	3	5	5	8	3	4
·285	·271	·278	79	89	84	7·0	6·5	6·8	1·203	·370	26th	11	0	0	2	2	13	1	14	17	6	3	3	4	9	5	1
·306	·279	·293	74	88	81	7·8	7·5	7·7	1·619	·220	27th	12	0	2	3	1	16	2	3	28	5	5	1	9	3	8	0
·294	·281	·288	73	87	80	7·4	5·8	6·6	0·760	·130	4th, 10th	11	0	1	3	1	12	0	15	18	5	2	3	5	8	5	1
·298	·280	·289	70	81	75	7·0	4·9	6·0	0·360	·180	31st	7	0	1	3	2	9	0	12	19	7	2	3	5	4	3	7
·279	·281	·280	75	82	78	7·1	6·2	6·7	2·590	1·440	26th	10	0	0	0	1	11	1	14	12	9	5	0	7	13	2	0
·279	·276	·278	85	92	88	6·2	6·7	6·5	3·670	1·640	26th	9	0	0	0	3	9	0	0	16	14	1	0	0	11	20	0
·268	·261	·264	77	82	80	6·5	6·3	6·4	2·650	1·130	26th	10	0	2	1	0	11	5	5	16	13	1	4	4	7	9	3
·273	·274	·274	71	76	74	8·0	6·2	7·1	1·630	·410	11th	15	0	0	0	2	15	0	2	29	0	3	2	11	1	3	11
·316	·287	·302	82	90	86	7·5	5·9	6·7	1·459	·372	10th	13	0	1	3	2	13	2	6	20	5	3	3	6	6	5	8
·274	·275	·275	76	82	79	7·5	5·1	6·3	1·780	·410	26th	11	0	1	2	1	10	1	9	21	4	1	3	9	5	9	1
·281	·282	·282	77	84	80	6·5	5·4	6·0	2·646	1·595	26th	7	0	0	1	3	9	0	6	13	9	5	1	4	10	6	8
·289	·280	·285	73	80	76	6·9	4·7	5·8	0·940	·290	27th	9	0	1	4	3	5	0	12	7	13	1	3	3	7	3	13
·275	·278	·277	70	79	75	6·5	3·8	5·2	0·550	·210	27th	7	0	0	0	5	7	0	10	15	5	1	0	6	8	2	15
·295	·285	·290	69	78	74	7·2	4·0	5·6	0·646	·227	11th	9	0	1	1	5	10	0	6	26	6	1	0	9	9	2	3
·374	·344	·359	88	96	92	6·4	6·3	6·4	0·380	·230	31st	5	0	0	1	1	10	0	0	11	25	2	1	13	2	0	8
·312	·292	·302	74	88	81	5·8	4·2	5·0	0·154	·040	28th	7	0	0	0	1	4	3	15	24	6	0	1	7	5	4	0
·296	·296	·296	68	77	72	6·2	3·9	5·1	0·386	·206	31st	6	0	0	1	5	7	0	6	27	3	3	1	11	4	7	0
·317	·300	·309	76	84	80	5·0	3·5	4·3	0·072	·022	5th	5	0	0	4	8	3	2	13	24	5	2	0	6	6	3	3
·279	·277	·278	75	78	77	5·5	5·5	5·5	2·960	·620	25th	12	1	1	0	7	9	2	10	5	11	2	0	7	10	7	10
·286	·278	·282	75	82	79	—	—	—	1·190	·433	30th	14	0	2	0	—	—	2	1	10	12	4	2	11	4	18	0
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·274	·270	·272	74	82	78	7·1	5·9	6·5	1·260	·310	26th	13	0	0	0	2	10	2	1	6	14	2	0	10	16	2	11
·291	·287	·289	77	86	81	6·5	4·9	5·7	0·857	·470	23rd	7	0	0	0	3	6	1	6	9	13	0	3	6	12	9	4
·306	·311	·309	79	85	82	5·2	4·0	4·6	1·780	·850	26th	8	0	0	0	11	8	3	7	4	20	6	0	7	14	4	0
·319	·321	·320	79	91	85	6·0	5·0	5·5	1·321	1·106	26th	8	0	0	3	4	9	0	10	12	13	4	3	6	10	3	1
·311	·306	·309	73	85	79	5·2	4·1	4·7	2·060	1·400	26th	10	0	0	0	10	10	0	12	5	19	2	4	4	8	4	4
·267	·266	·267	77	87	82	7·1	5·1	6·1	1·390	·440	26th	7	0	1	0	4	10	0	5	9	20	5	2	10	4	7	0
·302	·305	·304	74	83	78	5·6	3·8	4·7	0·840	·300	26th	8	0	0	2	8	4	0	4	25	4	3	4	9	7	5	1
·299	·286	·293	76	84	80	7·3	5·8	6·6	1·575	·210	23rd, 30th	17	0	3	0	2	10	0	2	19	3	0	5	15	7	4	7
·304	·311	·308	86	89	88	9·3	6·7	7·5	1·300	·425	23rd	11	0	1	1	0	13	4	5	18	2	1	2	13	8	4	9
·282	·277	·280	74	82	78	8·2	6·1	7·2	2·076	·824	27th	16	0	2	1	1	14	0	7	3	9	3	2	6	3	6	23
·283	·287	·285	72	75	73	5·9	4·5	5·2	0·847	·242	31st	9	0	1	1	3	6	0	9	7	13	1	0	6	14	9	3
·282	·279	·281	71	80	76	6·3	4·9	5·6	1·388	·426	23rd	11	0	1	0	6	10	0	10	9	5	3	2	11	9	6	7
·311	·296	·304	71	79	75	5·1	3·3	4·2	0·432	·312	31st	7	0	0	1	8	2	2	4	33	7	1	1	2	8	4	2

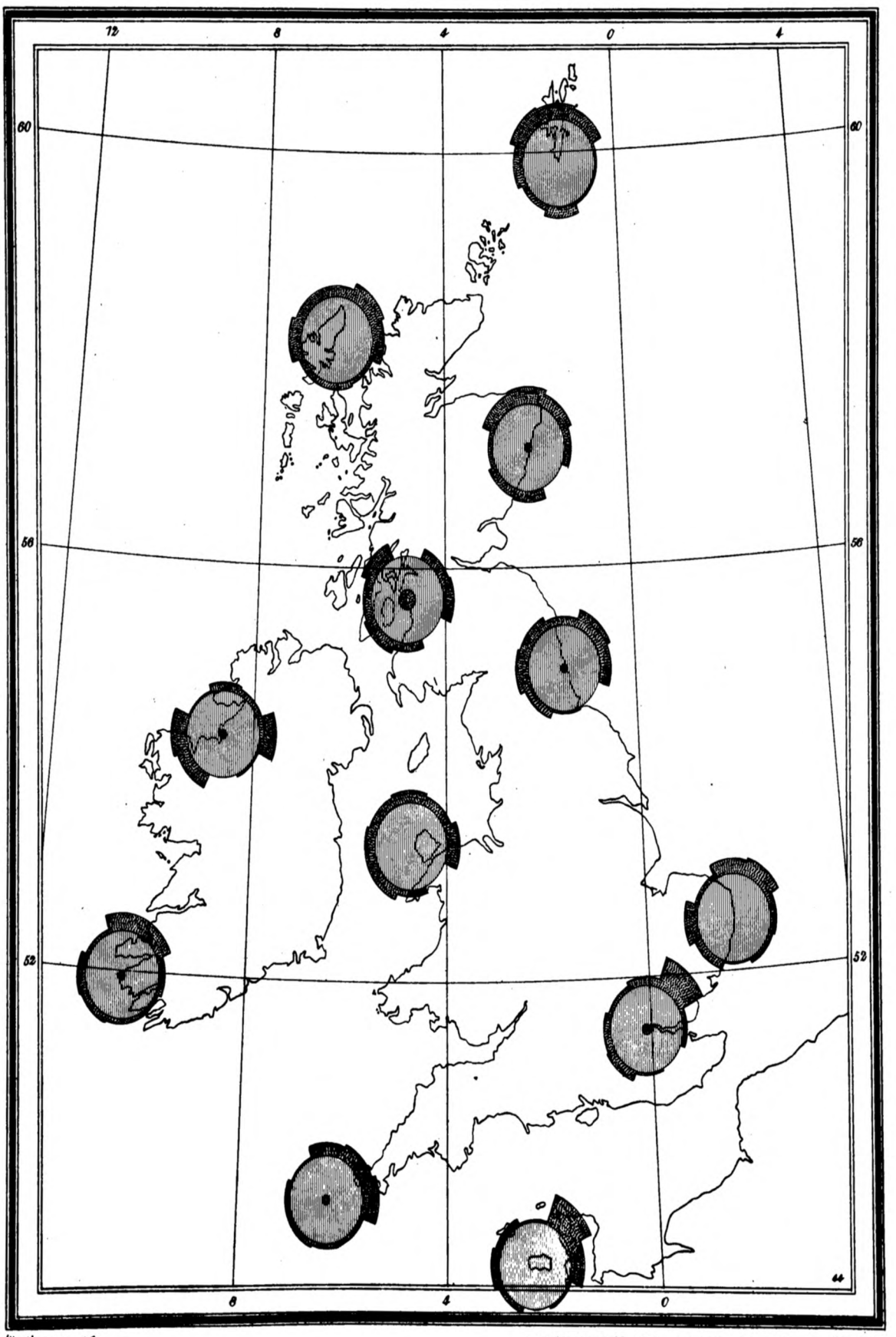
TABLE C., MAY.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS, during the Month of MAY 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE. At 8 a.m.	Means of Minima.	Means of Maxima.	Means of Min. and Max. combined.	Absolute Extremes. Minimum.	Absolute Extremes. Date.	Absolute Extremes. Maximum.	Absolute Extremes. Date.	TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL. Total Fall in the Month.	RAINFALL. Maximum Fall in One Day.	RAINFALL. Date.	WEATHER. No. of Days of Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	WIND. No. of Observations of North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND, N.	Sumburgh Head	30·011	46·7	41·0	51·1	46·1	34	7th	54	2nd, 20th, 26th, 27th, 30th,	·257	81	7·2	1·03	0·44	18th	17	1	0	0	0	11	1	6	5	1	1	4	2	4	8	0
	Wick	30·041	48·9	39·9	55·1	47·5	31	4th	63	19th	·273	79	6·9	1·44	0·37	27th	14	0	0	0	5	16	3	8	0	2	2	4	2	6	6	1
	Stornoway	30·034	48·7	42·1	52·0	47·1	37	3rd, 5th	59	18th, 19th	·294	86	6·6	1·91	0·42	25th	16	0	1	0	2	10	8	4	7	5	1	2	2	6	4	0
1. SCOTLAND, E.	Nairn	30·061	49·0	43·0	57·1	50·1	34	4th	68	19th	·259	74	5·5	0·64	0·13	9th	10	0	1	0	6	8	4	3	2	4	2	2	4	7	3	4
	Aberdeen	30·068	50·6	43·0	56·8	49·9	33	5th	68	19th	·270	73	6·3	0·80	0·40	28th	11	0	2	0	1	9	3	7	5	3	0	4	3	2	6	1
	Leith	30·084	50·4	42·7	58·6	50·7	34	8th	76	20th	·291	80	7·0	0·63	0·15	22nd	13	0	1	0	1	13	1	4	4	5	1	2	3	9	3	0
2. ENGLAND, N.E.	Shields	30·095	49·3	43·1	54·1	48·6	36	8th	65	19th	·277	78	6·4	1·23	0·48	26th	12	0	0	1	3	11	3	3	7	5	0	1	3	6	5	1
	York	30·112	49·4	41·2	58·8	50·0	32	7th	68	19th, 20th	·270	76	6·1	2·11	0·97	26th	10	0	0	0	10	12	1	7	6	2	1	4	2	6	3	0
	Spurn Head	30·089	49·2	44·6	53·8	49·2	40	2nd	66	26th	·292	84	7·0	0·98	0·34	26th	11	0	0	2	1	10	1	5	7	3	0	3	6	3	3	1
3. ENGLAND, E.	Yarmouth	30·085	50·6	44·7	55·1	49·9	37	8th	75	27th	·301	81	4·8	0·77	0·19	28th	9	0	0	2	8	3	1	6	8	3	2	1	3	6	2	0
	Cambridge	30·097	51·3	40·9	62·3	51·6	30	1st, 19th	82	26th	·297	79	7·0	0·75	0·38	10th	8	0	0	2	2	15	0	8	8	2	2	1	4	3	2	1
4. MIDLAND COUNTIES.	Nottingham	30·123	51·7	41·5	61·3	51·4	32	1st	73	26th	·280	74	6·8	1·76	0·44	27th	11	0	0	1	8	15	0	8	7	1	1	6	5	2	0	1
	Oxford	30·107	50·1	41·3	62·5	51·9	31	1st, 2nd	73	23rd	·285	79	6·9	0·83	0·38	27th	8	0	0	0	9	19	0	6	11	1	0	3	3	4	2	1
5. ENGLAND, S.	London	30·100	52·3	43·5	63·2	53·4	32	1st	86	26th	·274	70	6·7	0·49	0·22	3rd, 31st	6	0	0	1	2	11	1	3	15	2	0	1	4	3	2	1
	Dover	30·073	52·9	46·9	56·9	51·9	40	8th	67	26th	·296	74	3·7	0·48	0·28	28th	8	0	0	1	3	3	3	3	15	3	2	0	3	5	0	0
	Hurst Castle	30·089	50·7	45·3	58·3	51·8	36	1st	67	20th	·316	86	4·7	0·50	0·19	31st	7	0	0	2	6	4	1	0	11	9	2	0	2	5	2	0
6. SCOTLAND, W.	Ardrossan	30·096	49·5	44·0	56·1	50·1	37	4th	62	20th	·294	84	7·0	1·15	0·30	30th	14	0	2	0	4	13	4	0	4	5	0	3	5	4	7	3
7. ENGLAND, N.W.	*Hawes Junction	28·853	44·9	38·0	53·1	45·6	29	7th, 9th	66	20th	·244	83	6·3	3·02	1·28	23rd	11	0	0	0	6	13	4	7	2	7	0	1	6	6	0	2
	Barrow-in-Furness	30·095	49·4	44·4	58·4	51·4	37	7th	69	14th	·278	79	4·8	1·26	0·60	26th	8	0	0	0	5	9	8	3	13	3	1	1	4	2	4	0
	Liverpool	30·112	50·3	44·8	57·0	50·9	38	8th	64	14th	·264	73	5·7	2·08	1·12	26th	8	0	0	0	9	11	2	2	5	6	3	1	3	6	3	2
	Holyhead	30·114	50·5	47·1	56·3	51·7	40	1st	63	15th, 19th	·293	80	5·2	0·93	0·39	26th	6	0	0	0	7	9	0	5	4	6	0	2	5	5	4	0
8. ENGLAND, S.W.	Pembroke	30·108	49·6	45·8	55·8	50·8	38	2nd	65	15th	·296	83	5·6	1·75	1·38	26th	11	0	0	0	3	11	0	6	5	9	1	3	1	2	3	1
	Prawle Point	30·093	51·7	44·5	59·1	51·8	38	1st	78	20th	·309	81	5·2	0·53	0·21	26th	7	0	0	0	2	5	0	1	14	3	1	2	5	2	2	1
9. IRELAND, N.	Donaghadee	30·128	49·8	44·0	56·6	50·3	36	8th	63	18th	·298	83	6·4	0·85	0·22	23rd	10	0	0	0	5	13	0	5	4	4	3	2	3	7	3	0
	Mullaghmore	30·115	49·6	46·0	56·5	51·3	40	3rd, 8th	65	17th	·307	87	7·4	2·01	0·52	23rd	17	0	2	0	5	15	8	3	2	8	1	0	6	9	1	1
10. IRELAND, S.	Valencia	30·132	53·7	46·5	59·6	53·1	39	1st	72	15th	·305	74	6·4	2·17	0·87	29th	14	0	0	0	1	9	4	7	7	3	2	2	3	4	2	1
	Roche's Point	30·118	51·9	47·0	61·5	54·3	40	3rd, 4th	70	19th	·300	78	5·9	2·35	0·56	30th	11	0	1	0	0	8	0	6	6	6	2	1	2	4	4	0
CHANNEL ISLANDS	Scilly (St. Mary's)	30·105	52·8	48·6	56·3	52·5	43	10th	63	15th	·348	86	7·1	1·79	1·30	26th	11	0	0	0	3	15	5	5	6	8	2	2	3	3	1	1
	Jersey	30·066	52·5	46·6	58·7	52·7	41	8th	77	26th	·312	79	5·2	0·40	0·31	31st	6	0	0	3	5	7	5	1	14	6	1	0	2	4	3	0

Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations at this station are not reduced for altitude.

Monthly Wind Chart for May 1880.



To face p. 64

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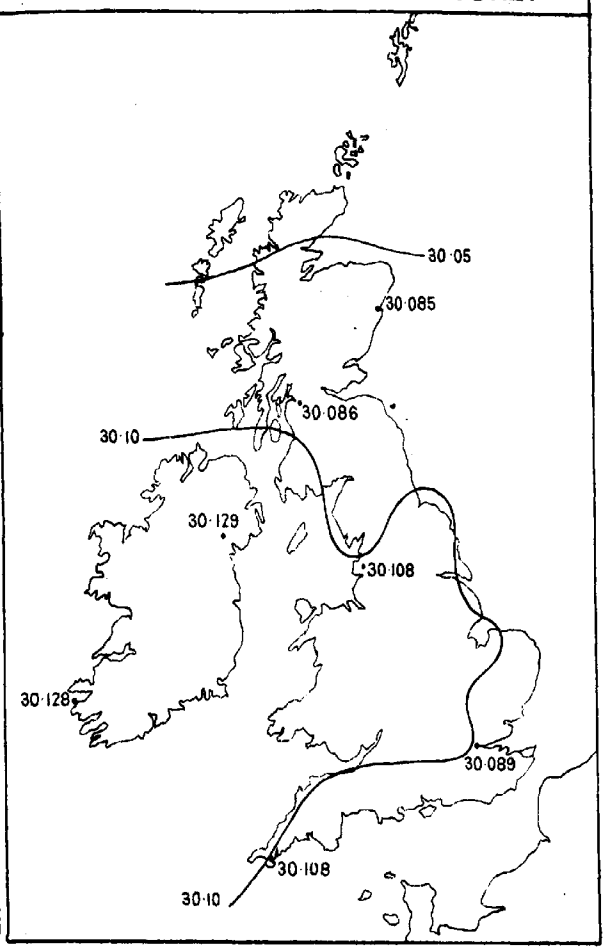
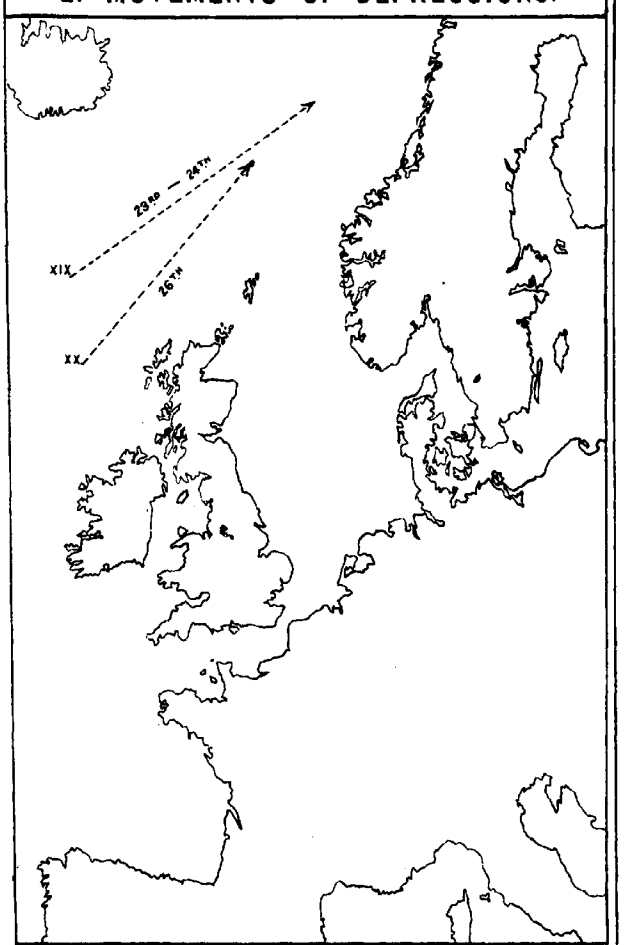
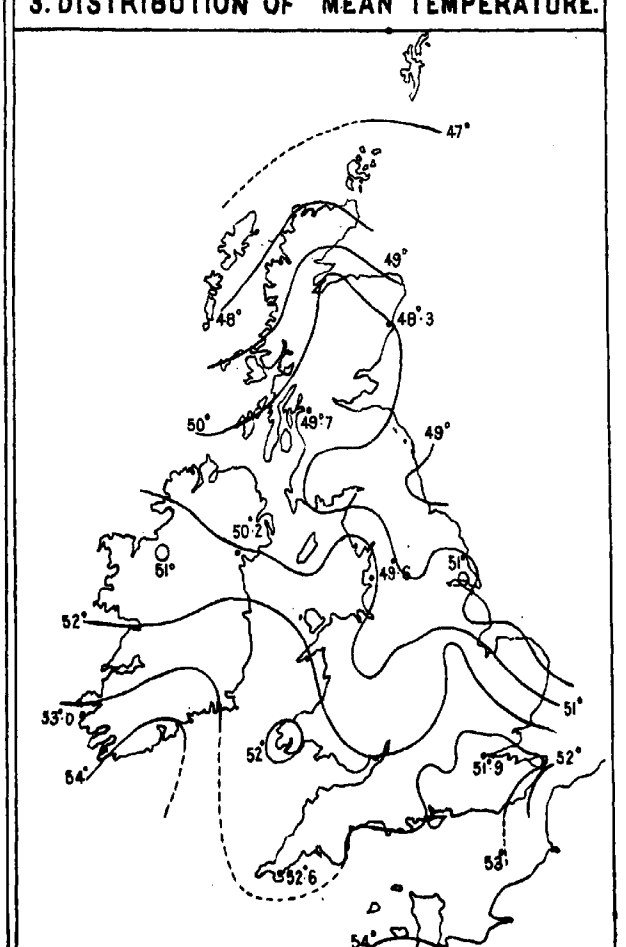
1. DISTRIBUTION OF MEAN PRESSURE.



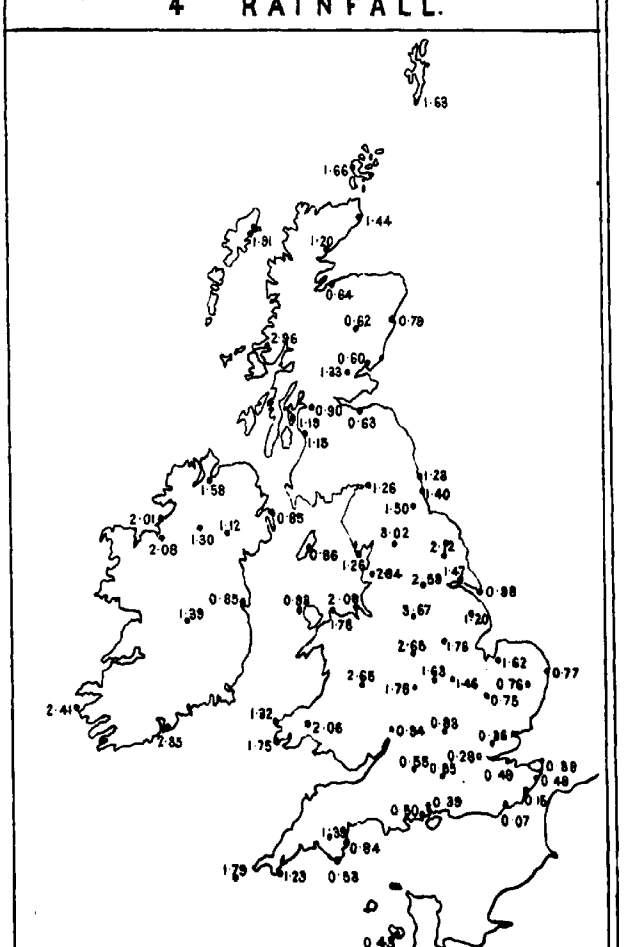
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.



To follow Wind Chart for May.

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Remarks for June 1880.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—At the commencement of the month a moderate Easterly current, governed by an anticyclonic centre to the northward of Great Britain, prevailed over the entire kingdom, but as the anticyclone moved to the westward, the wind gradually backed to North-east and North, the latter becoming the prevailing direction by the 3rd. On the 4th it blew strongly at some northern stations, and then backed still more to North-west and West, the high pressures in the north having quite passed away. This Westerly current continued till the 8th, blowing steadily over the southern half of the kingdom, but occasionally veering to North-west, or even to North, at the northern stations. On the 9th it became light and variable, and continued so till the 11th, when a Southerly current set in on our north-western coasts, and gradually extended itself over the kingdom, the force increasing considerably at our western stations on the 12th. On the 13th it again fell light and variable for a few hours, after which another Northerly current became developed, and continued to blow for a couple of days, at times rather freshly. On the 16th it veered to North-east and East, and on the 20th shifted still further in the same direction to South-east and South. After this another spell of light airs set in, West being the predominating direction at the southern stations, and East at the northern, but the former current gradually extended itself northwards, and by the 27th a steady Westerly wind blew in all parts of the kingdom, and continued to do so till the close of the month.

From the monthly chart it will be seen that at the southern stations the winds were fairly equally distributed round the compass, but that at the northern stations there was a decided preponderance of winds from between East and North-west.

Pressure.—The mean pressure for the month did not differ greatly from the average, but it was remarkably uniform, and at the same time the slight gradient shown was abnormal in its distribution, the highest values being in the south-west of England and Ireland, and the lowest in the east of England. The range of the barometer was very moderate, scarcely exceeding an inch at Aberdeen, where it was greatest, and only amounting to ·65 inch at Kew, where it was least. The maxima occurred on the 1st at the northern stations, on the 15th at Valencia, and on the 27th over southern England, the highest reading recorded being 30·5 inches at Aberdeen. The lowest point reached by the mercury was 29·42 inches, which occurred on the 7th, also at Aberdeen; but in England the barometer did not fall below 29·5 inches.

Movements of the Depressions.—The only depressions of importance experienced during the month kept at a considerable distance from our coasts; but one of them was followed by a secondary V-shaped disturbance, which moved in an easterly direction across England on the 7th, but lasted only for a few hours. Two anticyclonic systems were observed, one of which, No. XI., travelled from the Bay of Biscay eastward over our southern coasts.

Temperature.—The mean temperature was below the average over England and Wales, but nearly normal over Scotland and Ireland. The mean values varied from 60° in the south of Ireland, and about 58° over the English midlands, to 53° in the north of Scotland. The range of temperature amounted as a rule to between 30° and 40°, but at Pinmore it reached 50°, owing to the high maximum recorded on the 18th. The lowest temperatures were, as a rule, recorded at the beginning of the month, generally on the 5th or 10th, but the maxima occurred more irregularly, although in most instances not until the closing days of the month.

Vapour Tension.—The mean values of vapour tension varied from about ·4 inch over the south of England to about ·3 inch in north-east Scotland, the mean value for the greater part of the kingdom being about ·36 inch. *Relative Humidity* values showed a good deal of irregularity in their distribution over the kingdom.

Rainfall.—Over the northern half of the kingdom the fall of rain was less than the average, and in places considerably so, but over the greater part of England it was above the average, the excess being, however, due generally to heavy individual falls rather than to continuous wet weather. The dates of these heavy falls were very varied, but in several instances the amount measured exceeded an inch in 24 hours. Over Ireland and south-west England the totals recorded for the month did not differ much from the average.

TABLE A., JUNE.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of JUNE 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).							TEMPERATURE In the Shade (In Degrees Fahrenheit).							HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.					Range.	Mean for the Month.	Extremes.					Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
		Minimum.			Maximum.				Minimum.		Maximum.						
		Reading.	Date.		Reading.	Date.			Reading.	Date.		Reading.	Date.				
	ins.	ins.	D.	H.	ins.	D. H.	ins.	°	°	D. H.		°	D. H.	°	in.	%	ins.
Valencia - -	29·960	29·461	20th,	5 a.m.	30·365	15th, 1 p.m.	·904	56·6	42·5	10th, 5 a.m.		72·8	17th, 6 p.m.	30·3	·370	80	4·838
Armagh - -	·944	·513	21st,	6 a.m.	·411	1st, 11 p.m.	·898	55·4	38·1	10th, 5 a.m.		68·6	18th, 1 p.m.	30·5	·350	80	4·460
Glasgow - -	·904	·483	7th,	1 p.m.	·448	1st, 11 p.m.	·965	55·4	37·3	9th, 5 a.m.		71·5	22nd, 2 p.m.	34·2	·327	74	2·254
Aberdeen - -	·930	·423	7th,	6 p.m.	·504	1st, 10 p.m.	1·081	*52·5	40·8	7th, 4 a.m.		71·1	28th, 2 p.m.	30·3	·322	81	3·190
Falmouth - -	·963	·531	20th,	5 a.m.	·336	27th, 10 p.m.	·805	56·2	45·5	5th, 4 a.m.		67·9	22nd, 3 p.m.	22·4	·367	81	1·405
Stonyhurst - -	·915	·511	7th,	8 a.m.	·324	1st, 11 a.m.	·813	55·7	37·1	5th, 4 a.m.		70·0	22nd, Noon	32·9	·343	77	4·784
Kew - -	29·914	29·594	7th,	1 p.m.	30·239	27th, 10 p.m. 11 p.m.	·645	57·7	37·4	5th, 4 a.m.		76·0	29th, 5 p.m.	38·6	·363	76	2·205

* Mean for one day is approximate.

TABLE B., JUNE.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Means of			Absolute Extremes.			
						Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·915	53·5	51·0	52·3	46·7	58·4	52·6	40·8	5th	66·0	17th
	Dunrobin Castle S	29·932	55·5	52·2	53·9	47·3	58·5	52·9	39·6	8th	64·2	28th
1. SCOTLAND, E.	Braemar S	29·895	54·3	51·6	53·0	44·0	62·3	53·2	33·7	11th	70·5	24th
	Dundee S	29·916	58·2	52·7	55·5	48·1	64·5	56·3	37·2	9th	72·7	29th
	Glenalmond	29·925	56·2	51·8	54·0	46·7	63·6	55·2	37·0	8th	73·0	25th
2. ENGLAND, N.E.	Seaham	29·912	55·8	52·3	54·1	47·3	59·3	53·3	37·8	10th	73·7	28th, 30th
	Durham*	29·904	58·2	50·2	54·2	45·8	63·8	54·8	35·6	10th	75·4	30th
	York	29·922	56·9	54·3	55·6	48·3	64·1	56·2	36·0	5th	74·0	22nd
	Hull	29·921	57·5	54·2	55·9	49·4	65·2	57·3	39·2	9th	76·0	29th
	Kelstern ℳ	29·920	55·7	51·9	53·8	47·6	61·7	54·7	36·8	5th	72·5	29th
3. ENGLAND, E.	Hillington ℳ	29·900	59·2	53·6	56·4	48·4	65·9	57·2	38·2	9th	76·9	29th
	Geldeston	29·906	58·4	53·9	56·2	48·6	63·7	56·2	39·2	5th	74·9	29th
	Chigwell Row	29·947	58·9	55·1	57·0	49·4	66·5	58·0	35·4	5th	77·5	30th
4. MIDLAND COUNTIES.	Wakefield ℳ	29·922	57·4	55·1	56·3	48·6	63·5	56·1	37·0	10th	71·6	21st
	Buxton ℳ	29·921	53·0	52·0	52·5	44·2	62·4	53·3	33·9	10th	70·5	22nd
	Cheadle ℳ	29·920	54·6	53·1	53·9	48·0	62·2	55·1	37·5	9th	69·7	29th
	Leicester	29·906	57·2	56·5	56·9	48·7	64·4	56·6	38·0	5th	73·0	29th
	Uppingham	29·911	56·7	52·9	54·8	48·2	64·6	56·4	37·1	5th	74·1	29th
	Oscott	29·917	56·0	54·1	55·1	48·5	63·8	56·2	39·0	9th	72·5	29th
	Churchstoke ℳ	29·945	55·6	53·5	54·6	47·2	62·2	54·7	35·8	9th	70·2	18th
	Cheltenham ℳ	29·933	58·4	54·7	56·6	47·3	65·0	56·2	34·0	10th	73·7	18th
5. ENGLAND, S.	Marlborough ℳ	29·936	57·6	54·1	55·9	48·2	65·2	56·7	36·2	10th	74·0	30th
	Strathfield Turgiss ℳ	29·933	59·9	55·4	57·7	47·8	67·0	57·4	35·0	5th	76·1	30th
	Ramsgate ℳ	29·921	58·0	55·1	56·6	48·6	63·8	56·2	43·0	5th	74·0	28th
	Folkestone	29·918	57·8	54·4	56·1	49·9	63·0	56·5	38·8	5th	74·1	18th
	Southampton	29·927	58·5	55·2	56·9	49·3	65·7	57·5	38·9	10th	73·7	30th
	St. Leonards	29·923	58·0	55·0	56·5	51·2	62·0	56·6	37·2	5th	73·0	18th
6. SCOTLAND, W.	Laudale	29·914	56·7	55·5	56·1	48·8	63·0	55·9	37·0	9th	72·8	17th
	Rothesay S	29·934	57·5	54·3	55·9	47·3	65·0	56·2	37·6	11th	74·0	16th
	Pinmore S	29·916	58·9	53·7	56·3	44·9	65·7	55·3	30·5	10th, 11th	80·1	18th
7. ENGLAND, N.W.	Scaleby ℳ	29·905	58·4	54·1	56·3	47·1	65·8	56·5	34·5	5th	72·5	3rd
	Douglas (Isle of Man)	29·914	57·3	53·5	55·4	48·2	61·8	55·0	35·2	10th	70·5	17th
	Llandudno ℳ	29·926	57·2	55·0	56·1	51·1	61·7	56·4	41·0	10th	69·4	22nd
8. ENGLAND, S.W.	St. David's	29·942	55·6	53·5	54·6	50·7	60·5	55·6	41·3	10th	68·1	18th
	Caermarthen ℳ	29·929	59·1	54·2	56·7	49·9	63·5	56·7	35·9	10th	71·8	17th
	Dartmoor ℳ	29·949	52·7	49·1	50·9	45·8	57·3	51·6	36·0	10th	65·0	29th
	Babbacombe ℳ	29·951	58·0	53·7	55·9	50·0	63·5	56·8	38·4	10th	72·7	29th
9. IRELAND, N.	Londonderry	29·948	58·4	54·2	56·3	47·7	64·7	56·2	33·7	10th	76·0	19th
	Brookeborough	29·918	55·5	54·9	55·2	47·0	63·4	55·2	33·3	10th	72·1	18th
	Markree Castle	29·935	57·0	53·4	55·2	47·2	63·1	55·2	34·3	9th	72·4	18th
10. IRELAND, S.	Dublin	29·949	57·2	56·1	56·7	51·1	63·1	57·1	40·8	5th	69·2	29th
	Parsonstown	29·954	57·9	54·5	56·2	49·3	64·8	57·1	37·8	11th	75·2	18th
CHANNEL	Jersey (St. Aubin's)	29·983	58·0	54·7	56·4	51·4	62·8	57·1	44·3	10th	72·3	29th

NOTE.—The stations marked ℳ are in connexion with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS during the Month of JUNE 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER, No. of Days of							WIND, No. of Observations of								
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																
·319	·311	·315	78	83	81	5·8	5·5	5·7	2·300	·590	30th	15	0	0	0	7	10	2	8	3	10	11	7	1	4	10	6
·387	·361	·374	87	92	90	—	—	—	2·770	·920	30th	13	0	0	0	—	—	0	5	16	12	8	1	7	7	4	0
·310	·314	·312	73	81	77	5·9	5·8	5·9	3·070	·900	29th	18	0	0	5	4	4	0	0	20	9	2	2	8	9	10	0
·350	·336	·343	72	84	78	7·6	8·3	8·0	1·500	·550	29th	7	0	2	2	2	20	3	1	5	11	18	8	5	3	9	0
·340	·334	·337	75	85	80	6·9	6·4	6·7	1·974	·682	29th	12	0	0	2	4	14	0	1	10	10	3	6	7	2	2	19
·358	·349	·354	80	89	85	6·4	6·2	6·3	1·094	·410	15th	13	0	0	4	2	8	2	19	1	2	4	1	9	8	3	13
·381	·345	·363	78	94	86	8·0	7·0	7·5	2·619	·922	15th	15	0	0	3	0	15	0	9	16	0	3	7	6	5	8	6
·368	·360	·364	80	85	83	6·7	7·0	6·9	1·550	·370	8th	16	0	0	6	1	12	0	13	7	7	4	4	8	11	6	0
·383	·366	·375	80	87	84	8·1	5·6	6·9	2·090	·620	19th	14	0	0	2	2	10	0	1	20	10	3	3	1	10	8	4
·374	·353	·364	84	91	87	8·1	6·8	7·5	4·276	·940	23rd	19	0	0	5	0	10	0	7	13	6	4	5	5	11	5	4
·408	·382	·395	81	92	87	8·4	8·5	8·5	2·836	·440	15th	19	0	2	6	0	17	0	2	19	3	10	2	8	8	8	0
·387	·369	·378	79	88	84	7·7	6·0	6·9	2·490	·590	24th	18	0	1	4	5	14	0	7	11	18	3	1	7	11	5	3
·399	·376	·388	80	86	83	8·3	8·1	8·2	4·230	1·160	25th	19	0	0	5	0	16	0	9	5	7	3	3	8	15	8	2
·380	·387	·384	81	89	85	8·1	7·0	7·6	3·310	1·460	23rd	15	0	0	3	0	13	0	10	9	6	2	2	6	16	8	1
·358	·358	·358	89	91	90	8·1	7·5	7·8	3·270	·720	5th	13	0	1	8	0	15	0	0	10	15	6	0	0	1	28	0
·357	·357	·357	84	88	86	7·2	6·4	6·8	2·670	·700	19th	18	0	2	6	1	10	4	10	9	6	3	3	8	4	11	6
·362	·363	·363	77	79	78	8·2	6·9	7·6	3·800	·870	22nd	22	0	1	4	1	15	0	3	17	1	2	1	22	5	3	6
·394	·372	·383	86	92	89	8·8	6·4	7·6	2·961	·660	1st	20	0	1	5	0	13	0	6	13	1	4	1	10	13	7	5
·373	·362	·368	83	86	85	8·8	6·7	7·8	2·970	·830	25rd	18	0	0	3	1	19	1	9	13	3	1	6	12	10	4	2
·354	·356	·355	80	86	83	7·6	6·4	7·0	2·892	·550	13th	21	0	0	4	0	9	0	4	5	3	6	3	10	8	16	5
·393	·387	·390	80	89	85	7·4	7·3	7·4	3·180	·860	22nd	23	0	2	7	1	12	0	9	9	2	0	10	3	13	4	10
·375	·366	·371	79	87	83	8·0	7·4	7·7	1·728	·340	17th	19	0	0	3	1	15	0	4	12	1	3	2	6	9	4	19
·397	·383	·390	77	86	82	7·8	7·0	7·4	2·727	·336	22nd	19	0	0	5	1	14	0	2	17	1	0	4	15	18	2	1
·438	·409	·424	91	94	92	8·1	7·2	7·7	4·320	1·050	25th	14	0	0	2	1	16	0	1	13	7	4	6	9	12	0	8
·409	·381	·395	85	89	87	8·5	6·2	7·4	2·637	·529	24th	16	0	0	5	0	11	0	11	8	5	0	6	12	14	4	0
·395	·387	·391	81	88	84	8·0	6·6	7·3	2·150	·593	22nd	18	0	0	5	1	15	0	3	13	1	4	6	22	5	5	1
·409	·384	·397	85	88	87	7·9	6·1	7·0	3·135	·617	22nd	21	0	0	1	1	12	1	12	8	4	2	3	16	13	1	1
·376	·377	·377	81	84	83	6·6	5·8	6·2	3·460	·750	28th	18	0	1	3	4	12	1	5	0	2	5	6	4	4	15	19
·373	·363	·368	79	85	82	—	—	—	2·665	·882	29th	16	0	0	2	—	—	1	2	16	6	3	5	6	8	12	2
·380	·357	·369	77	85	81	—	—	—	3·150	·650	28th	14	—	—	—	—	—	—	3	10	1	3	8	8	8	19	0
·378	·366	·372	77	86	81	5·7	5·8	5·8	2·210	·400	29th	16	0	0	3	6	9	0	2	11	8	2	0	9	7	1	20
·366	·360	·363	78	87	83	6·1	6·3	6·2	2·573	·510	27th	16	0	2	3	2	10	1	5	7	9	6	2	6	3	10	12
·367	·367	·367	78	85	81	7·1	6·3	6·7	2·590	·490	19th	16	0	0	5	2	11	1	10	5	15	1	3	3	19	4	0
·394	·382	·388	88	92	90	6·8	6·2	6·5	1·762	·371	13th	17	0	0	2	1	8	1	7	11	5	8	3	14	8	4	0
·381	·368	·375	76	87	82	7·8	6·7	7·3	1·950	·470	17th	16	0	1	4	1	14	0	11	5	8	3	5	10	12	2	4
·345	·337	·341	87	96	91	8·5	8·9	8·7	2·960	·520	18th	19	0	1	1	0	19	0	1	13	6	4	2	11	17	6	0
·386	·367	·377	81	88	84	7·4	6·6	7·0	2·290	1·230	22nd	17	0	0	3	2	11	1	11	10	4	3	5	10	9	6	2
·369	·365	·367	75	85	80	7·1	5·7	6·4	2·940	·750	29th	16	0	1	1	3	11	0	3	15	4	3	5	8	12	5	5
·384	·400	·392	87	94	91	7·9	7·9	7·9	3·759	·575	20th	17	0	2	4	0	18	8	6	13	3	2	0	8	8	4	16
·361	·345	·354	77	84	80	7·8	6·8	7·1	4·216	1·125	12th	17	0	0	4	0	13	0	7	3	3	4	2	3	2	5	31
·364	·369	·367	77	81	79	7·5	6·1	6·8	2·166	·339	7th	18	0	2	4	2	10	0	3	7	13	3	5	4	14	8	3
·363	·357	·360	75	83	79	7·2	7·7	7·5	2·538	·480	25th	19	0	0	2	1	15	0	7	5	5	6	5	11	6	8	7
·395	·379	·387	82	88	85	8·3	6·5	7·4	1·798	·392	9th	22	0	0	0	0	15	0	8	6	4	7	3	3	12	3	14

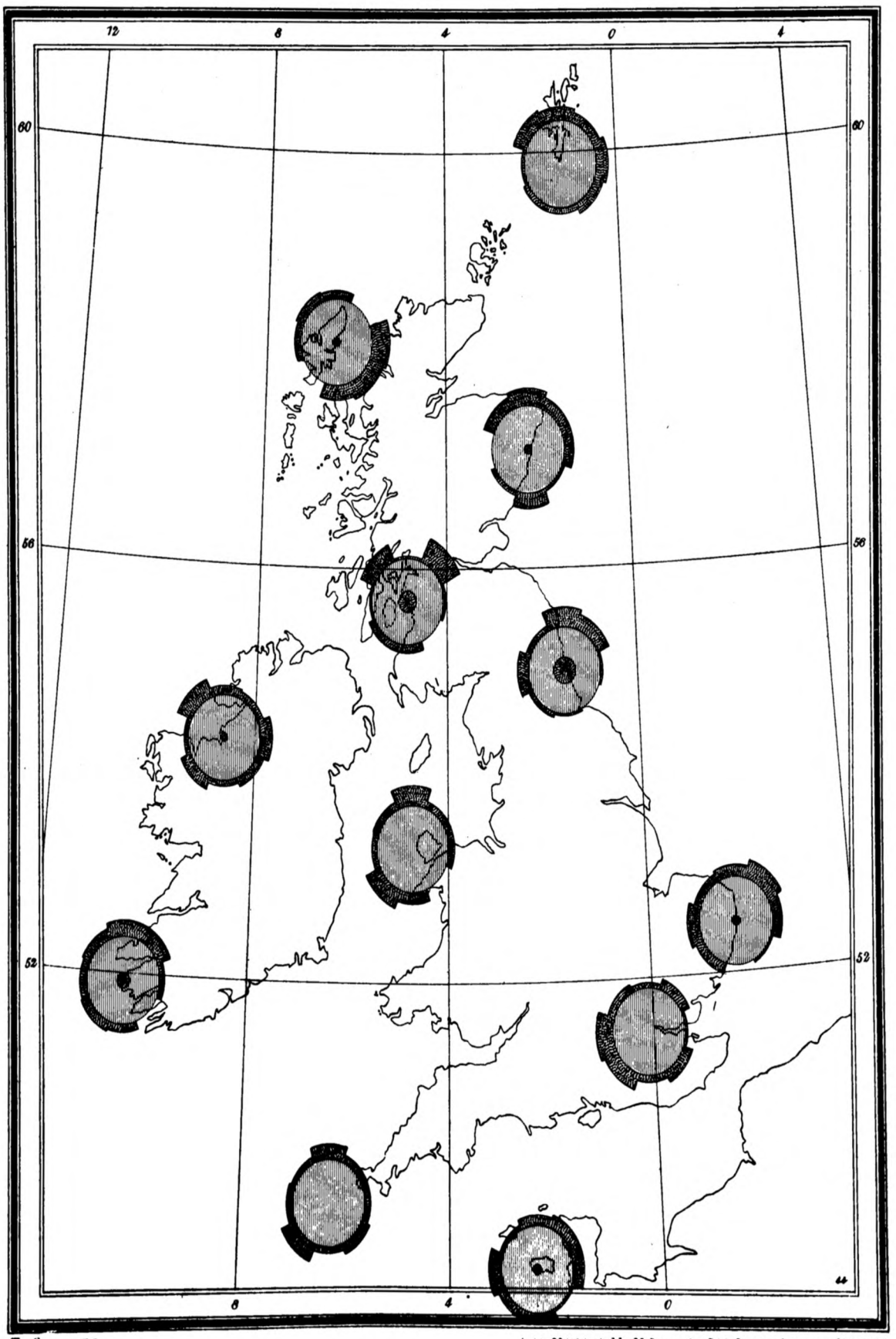
TABLE C., JUNE.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS during the Month of JUNE 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE. At 8 a.m.	Means of: Minima.	Means of: Maxima.	Means of: Min. and Max. combined.	Absolute Extremes: Minimum.	Absolute Extremes: Date.	Absolute Extremes: Maximum.	Absolute Extremes: Date.	TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL. Total Fall in the Month.	RAINFALL. Maximum Fall in one Day.	RAINFALL. Date.	WEATHER. No. of Days of: Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	WIND. No. of Observations of: North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND, N.	Sumburgh Head	29·917	51·6	45·1	55·8	50·5	39	8th	63	17th, 18th	·310	81	6·9	0·68	0·27	9th	11	0	0	0	2	11	0	5	4	6	4	2	2	1	6	0
	Wick	29·922	53·7	45·7	59·1	52·4	34	2nd	67	2nd	·328	80	7·1	2·00	0·56	28th	15	0	0	0	6	16	2	6	2	7	2	5	1	1	6	0
	Stornoway	29·907	54·8	47·0	57·9	52·5	37	11th	67	20th	·378	88	5·5	1·70	0·56	28th	12	0	0	0	5	8	1	3	0	8	6	5	0	3	4	1
1. SCOTLAND, E.	Nairn	29·923	54·6	48·1	62·2	55·2	37	2nd	72	25th	·307	73	4·6	1·51	0·39	30th	14	0	0	1	9	5	1	1	2	0	3	1	1	4	3	15
	Aberdeen	29·930	55·5	48·6	61·2	54·9	40	7th	73	28th	·337	76	6·6	2·94	0·77	29th	17	0	3	0	3	10	2	7	4	4	1	6	2	0	5	1
	Leith	29·928	56·5	48·4	63·4	55·9	40	9th	72	12th, 29th	·363	79	6·4	1·21	0·21	19th	17	0	1	3	3	13	1	3	5	7	3	1	2	5	4	0
2. ENGLAND, N.E.	Shields	29·918	53·7	48·9	58·9	53·9	40	9th	69	27th, 29th	·348	84	7·3	1·14	0·37	15th	12	0	1	1	2	13	4	8	5	1	0	1	2	5	2	6
	York	29·927	55·3	48·4	64·4	56·4	36	5th	74	22nd	·356	81	6·8	1·55	0·37	8th	16	0	0	0	7	16	0	7	5	2	1	3	3	6	3	0
	Spurn Head	29·901	54·3	49·9	59·0	54·5	43	12th	72	29th	·362	85	7·4	2·30	0·37	8th	18	0	0	3	1	16	1	5	8	1	2	2	5	3	1	3
3. ENGLAND, E.	Yarmouth	29·898	55·8	51·2	60·7	56·0	42	9th	74	28th	·383	86	5·5	2·58	0·50	15th	17	0	2	3	9	9	0	4	7	5	1	0	4	5	3	1
	Cambridge	29·908	56·7	48·1	67·1	57·6	37	5th, 9th	79	29th	·389	85	7·9	3·05	0·48	19th	17	0	0	6	1	18	0	9	3	0	1	3	9	2	3	0
4. MIDLAND COUNTIES.	Nottingham	29·931	56·8	47·8	67·1	57·5	34	5th	78	29th	·388	84	7·2	5·92	1·85	22nd	21	0	1	8	7	17	1	7	5	0	2	6	4	1	2	3
	Oxford	29·924	55·1	49·6	64·2	56·9	41	5th, 9th	73	18th	·369	85	7·1	3·27	1·13	25th	19	0	0	6	16	17	0	3	4	2	1	4	3	6	4	3
5. ENGLAND, S.	London	29·925	57·8	49·7	67·4	58·6	35	5th	79	30th	·385	80	7·6	2·50	0·56	23rd	21	0	1	4	2	14	0	2	4	1	4	2	6	8	3	0
	Dover	29·900	57·6	52·5	62·1	57·3	42	5th	68	26th, 27th	·395	83	5·9	3·23	0·45	9th	18	0	0	2	1	7	0	5	7	0	1	0	5	9	0	3
	Hurst Castle	29·952	55·5	51·9	61·1	56·5	42	10th	65	11th, 26th	·403	91	6·4	2·66	0·63	18th	18	0	0	3	4	12	0	2	9	4	0	3	1	8	2	1
6. SCOTLAND, W.	Ardrossan	29·922	55·6	49·2	63·1	56·2	40	9th	76	19th	·362	81	6·6	2·22	0·76	29th	16	0	0	2	1	11	0	1	10	1	0	3	3	1	7	4
7. ENGLAND, N.W.	Hawes Junction*	28·690	51·5	44·8	58·7	51·8	33	5th, 9th	68	25th	·329	86	6·9	5·43	1·59	28th	22	0	1	5	1	17	8	4	4	4	0	2	5	6	1	4
	Barrow-in-Furness	29·909	55·8	50·9	64·8	57·9	42	1st, 9th, 10th.	75	17th, 18th	·350	78	5·3	2·80	0·89	8th	16	0	0	0	6	10	4	3	11	2	3	0	6	1	4	0
	Liverpool	29·916	56·9	51·3	62·7	57·0	42	9th	72	18th	·362	78	6·2	2·31	0·34	6th	19	0	0	0	6	10	1	2	5	4	4	2	6	4	3	0
	Holyhead	29·927	54·6	51·6	60·0	55·8	45	9th, 10th	69	20th	·367	86	6·7	2·88	0·55	20th	15	0	0	1	3	10	0	8	3	3	0	4	7	2	3	0
8. ENGLAND, S.W.	Pembroke	29·924	54·2	51·1	58·7	54·9	44	10th	64	17th, 18th, 26th.	·375	89	7·1	1·98	0·44	18th	20	0	0	0	1	11	3	5	3	3	3	3	3	4	4	2
	Prawle Point	29·932	55·4	50·0	61·0	55·5	44	10th	70	15th	·395	90	7·7	1·16	0·37	13th	17	0	0	0	0	17	0	5	4	3	2	3	5	4	3	1
9. IRELAND, N.	Donaghadee	29·943	54·7	48·9	60·9	54·9	36	11th	68	18th	·369	87	5·4	1·51	0·29	7th	16	0	0	0	9	12	1	6	5	2	2	4	3	3	5	0
	Mullaghmore	29·933	55·3	51·5	61·2	56·4	41	11th	68	17th, 19th	·372	85	6·8	4·34	0·68	29th	16	0	1	3	7	13	6	3	2	5	3	2	5	2	7	1
10. IRELAND, S.	Valencia	29·958	57·4	50·9	62·2	56·6	40	10th	68	18th	·368	78	7·8	4·87	1·44	12th	15	0	0	2	0	13	4	6	6	2	0	3	4	3	4	2
	Roche's Point	29·942	57·0	52·5	67·8	60·2	45	5th, 9th	78	25th	·369	79	6·7	2·53	0·87	12th	13	0	0	1	1	10	1	8	3	3	5	2	4	2	3	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·954	56·2	52·1	59·9	56·0	45	2nd	65	22nd, 27th, 28th, 30th.	·399	88	8·5	1·27	0·28	13th	18	0	0	0	0	16	3	6	3	3	4	2	7	3	2	0
	Jersey	29·936	55·7	51·3	61·4	56·4	45	5th, 10th	75	29th	·398	90	8·2	1·78	0·44	9th	21	0	0	2	0	16	2	4	5	5	1	3	3	6	2	1

* Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations at this station are not reduced for altitude.

Monthly Wind Chart for June 1880.



To face p. 70.

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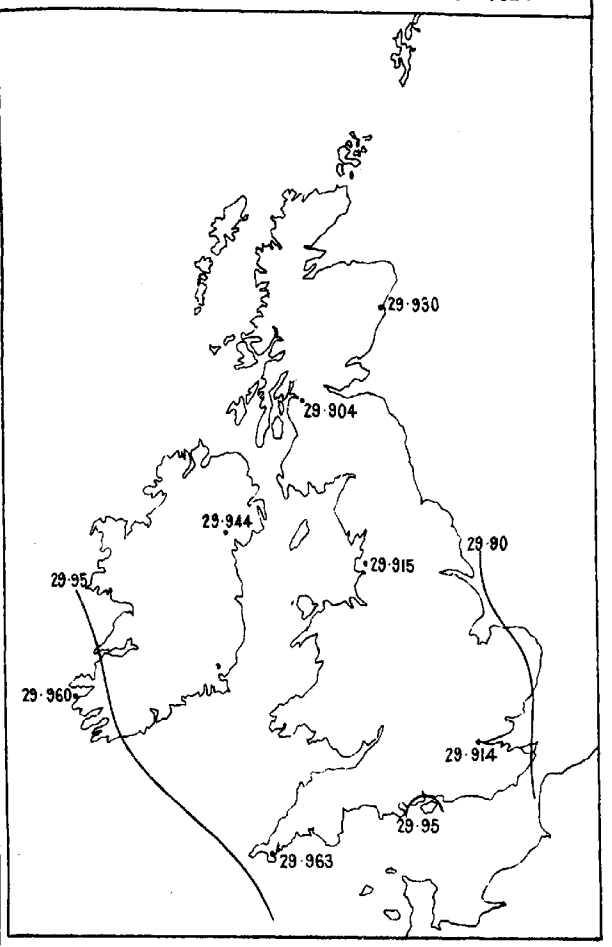
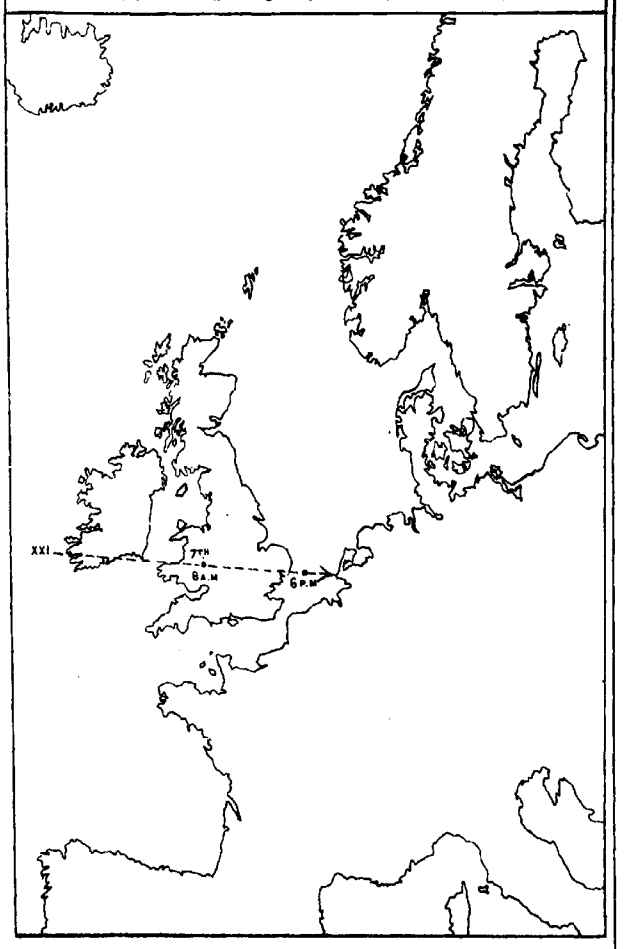
MONTHLY WEATHER CHART JUNE 1880.

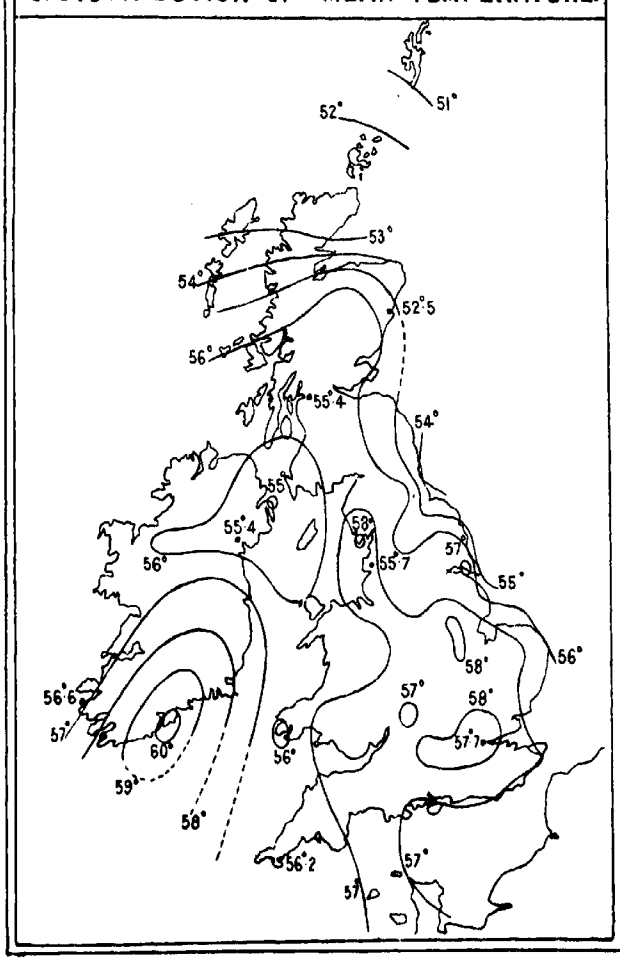
1. DISTRIBUTION OF MEAN PRESSURE.



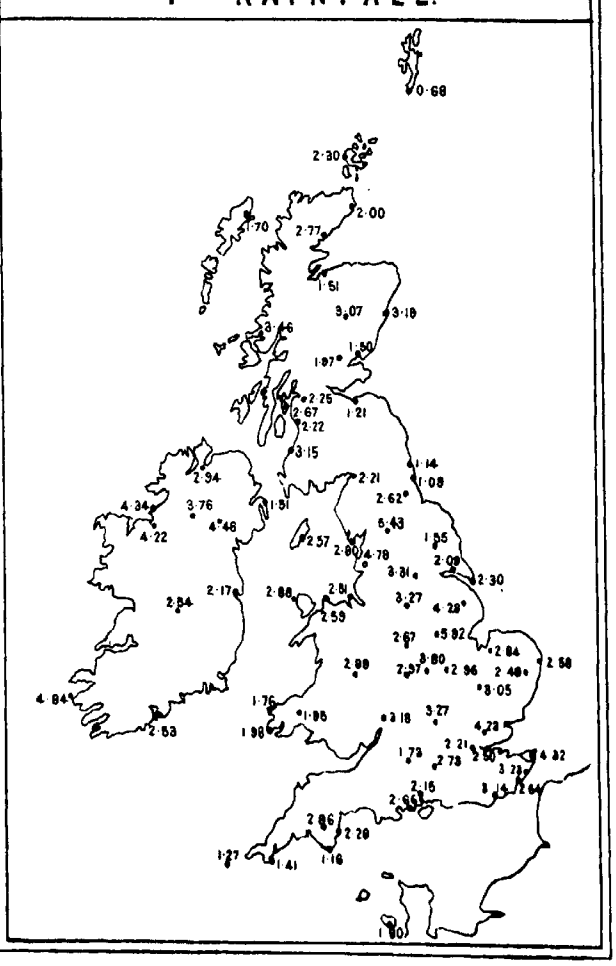
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.



To follow Wind Chart for June.

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PART III.

SECTION I.

GENERAL SUMMARY.

THE weather of the quarter was in no way exceptional. In July the temperature was below the average, thunderstorms were very frequent, and rainfall heavy, but August and September were warm and sunny. The rainfall over the whole quarter was in defect in Scotland, but elsewhere it was nearly normal, the dryness of the two later months making up for the wetness of July.

July 1st–10th.—During the first ten days of the quarter the area of highest barometrical readings lay over the south-western parts of the Continent. On the 3rd a slight depression, No. XXII., passed across the north of England, bringing with it smart thunderstorms, and in its rear the barometer rose, with Northerly winds, and remained over 30 ins. during the 4th and 5th. On the night of the 5th the barometer fell about 0·2 in. at all the northern and western stations, and on the 7th a depression, No. XXIII., formed itself near Aberdeen, and remained stationary in that district for three days. Otherwise the conditions of the first days of the month were restored, with light Westerly winds. Throughout the whole period, except on the 4th and 5th, rain was recorded daily at almost every station, but the amounts were nowhere very large.

July 11th–17th.—This interval was distinctly anticyclonic. On the 10th the area of low readings just referred to had passed off, possibly to Southern Norway, and the barometer in Ireland had risen to above 30 inches. These conditions established themselves during the 11th. At the same time a new depression (No. XXIV.) had appeared over the Sound, commencing with a downpour of 1·42 ins. of rain at Fanö. This disturbance travelled rapidly through the centre of Norway, towards Lapland, and disappeared on the 12th. By the morning of the 13th a definite area of high pressure (No. XII.) appeared over the Shetlands. Between this anticyclone and the southern high-pressure area, a slight trough existed covering these Islands. In this trough slight variations of pressure occurred, which were accompanied by thunderstorms, locally severe. On the 15th a very slight depression, with readings of 29·9 ins. at its centre, reached our south-east coast, and the electrical disturbance which came with it was exceptionally violent at Oxford, where no less than 2·19 ins. of melted hail and rain were collected on that day.

July 18th–23rd.—This interval was finer than those which had preceded it. The thunderstorms ceased for a time on the 18th, a very slight depression crossed the north of these Islands on the 19th, and was succeeded by an anticyclone (No. XIII.), which was central over the United Kingdom on the 22nd and then moved in a southerly direction over France. Temperature was rather low for the time of year, ranging at 8 a.m. about 60°. The maxima at some stations rose above 70°.

July 24th–August 1st.—This period was marked by a return of very wet weather, the amount of an inch of rain being exceeded at Scilly on the 25th, Nottingham 26th, and at both Aberdeen and Sumburgh Head on the 28th. These were caused by two slight depressions Nos. XXV. and XXVI. Thunderstorms, however, were not so frequent as they had been earlier in the month.

August 1st–8th.—The weather did not show much improvement during the first week of August, as rain was still reported at almost all stations. On the 7th at 8 a.m. the isobar of 29·4 ins. followed a remarkably irregular course along our west coast, with two distinct loops, one over Southern Ireland, the other over the extreme north of Scotland. The

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former developed into a decided depression, No. XXVII., which travelled rapidly over Central England, finally disappearing over Southern Sweden on the 10th. This system produced over an inch of rain at Holyhead and Liverpool, and as much as 1·48 ins. at Yarmouth. The northern loop formed a very slight depression, secondary to No. XXVII., but to the northward of it. It produced the very unusual rainfall of 2·84 ins. at Sumburgh Head on the 7th.

August 9th–25th.—For the next fortnight the weather was at last fine, bright sunshine for the week ending on the 16th exceeding 50 per cent. of possible duration at several stations. The conditions were decidedly anticyclonic, one of these systems, No. XIV., lying over the kingdom. This was somewhat peculiar in its character, several local centres of high pressure appearing within the area covered by the whole system. After the 16th the sky became overcast, and at Leicester only five hours of sunshine were recorded during the week beginning that day.

August 26th–31.—This period was as dry as the last. The conditions were those of a permanent anticyclone lying over the south of Scandinavia, with pressure lowest over the south of France. Consequently our winds were Easterly or Northerly and the weather bright and sunny. On the 29th the first signs of approaching change came with thunderstorms in various places, which caused heavy local rains, 1·06 ins. at Nottingham and 1·49 ins. at Valencia. Elsewhere, however, no appreciable quantity was reported. On the evening of the 31st the eastern anticyclone began to move away, and Southerly winds to set in in the north-west of these Islands, as a fresh anticyclone approached the French coast from the south-west.

September 1st–9th.—The winds over these Islands were generally South-westerly and light and weather fine, the anticyclone establishing itself over France, while slight depressions passed outside our west and north coasts. The first of these appeared on the 3rd off Valencia, and is shown on the map of depression tracks. On the 6th another (No. XXVIII.) arrived near the Faröe Islands and passed on outside the coast of Norway without producing any very heavy rain. On the 7th a very slight cyclonic system travelled over Northern France to Belgium, and was accompanied by heavy rainfall along its track.

On the 8th another similar system appeared over the Bay of Biscay, and moved northwards to Scilly, where it turned to the north-west and skirted the Irish coast. At the same time a temporary anticyclone, No. XV., with readings of about 30·1 ins., had developed itself over Scotland and travelled slowly eastwards. By the evening of the 9th this had reached Scandinavia.

September 10th–20th.—This period was very unsettled and wet, rainfalls exceeding an inch (and on the 11th exceeding 2 ins. at North Shields) being reported from several stations. This change of weather was brought about by the passage of several cyclonic systems over our Islands. The first, No. XXIX., appeared over the west of France on the 11th, travelled nearly due north, and finally died out over the North Sea on the 12th. During its passage the exceptional rainfall at North Shields occurred, and several other east coast stations reported excessive amounts as above mentioned.

This was succeeded by the most strongly-marked cyclone of the whole quarter, No. XXX., which showed itself first off Valencia on the morning of the 14th, travelled rapidly across the south of England, then passed southwards into France, and again advanced in a north-easterly direction till it died out on the 17th off the east coast of Denmark. This system was accompanied by decided gales, as we see from Gale Table No. 17. They were strongest from North-west, and 73 miles an hour was reached at Holyhead.

September 21st–October 1st.—From this date to the end of the month the conditions returned to the anticyclonic type, the area of high barometrical readings, No. XVI., advanced gradually from the south-west, and by the 24th a definite system covered the south of England and the north of France. This continued with some slight modifications till the end of the month.

SECTION II.

TABLE OF CYCLONIC SYSTEMS, JULY 1887.

NATURE OF CHARACTERISTICS OBSERVED.	No. XXII. July 2-6.	No. XXIII. July 7-10.	No. XXIV. July 11-12.
Form	Circular	Oval	Circular.
Size	Small	Moderate	Moderate.
Depth	Shallow	Very shallow	Shallow.
Where first Observed	Off north-west of Ireland	Off east coast of Scotland	Near the Naze of Norway.
Direction of Motion	Easterly	None	North-easterly.
Rate of Motion	Slow	Stationary	Rapid.
Regions passed over by Steepest Gradients.	North of England	North of England	No gradients worth mention.
Termination	Disappeared off Christiansund	Became filled up	Disappeared over Lapland.
Time under Observation	Five days	Three days	Two days.
Accompanying Winds	The Northerly winds on the 3rd and 4th were the most marked.	Westerly over north of England	Westerly over the North Sea.
„ Weather	Very unsettled. Some thunderstorms	Showery, with some severe thunderstorms.	Showery.
„ Rainfall	Heavy generally, especially in the east of England.	Heavy in north and north-west; some hail.	Commenced with a rainfall of 1·42 ins. at Fanö on 10th.
REMARKS	This system was not of great importance. It was succeeded immediately by No. XXIII., which was secondary to it.	—	—

TABLE OF CYCLONIC SYSTEMS.—JULY-AUGUST 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XXV. July 26-27.	No. XXVI. July 27-30.	No. XXVII. August 7-9.
Form	Oval	Circular	Irregular
Size	Moderate	Very small	Very small
Depth	Shallow	Moderate	Very shallow
Where first Observed	Off Bristol Channel	Off west of Ireland	Over south of Ireland
Direction of Motion	Easterly	Easterly	Easterly
Rate of Motion	Rapid	Slow	Rapid
Regions passed over by steepest Gradients.	South of England	No gradients worth mentioning	South of England
Termination	Passed off to Norway	Passed off over Sweden	Filled up over Denmark
Time under Observation	Two days	Four days	Three days
Accompanying Winds	Westerly; strong in the Channel	Winds light	Fresh Westerly winds in the Channel.
„ Weather	Wet	Very wet	Wet
„ Rainfall	Very heavy rain along the Channel coast. More than an inch at Scilly 25th, and Nottingham 26th.	Very heavy; more than an inch at Aberdeen and Sumburgh Head on 28th.	A fall of an inch exceeded at several stations.
REMARKS	. . . . .	This very small area lay for two days over the Shetlands, and finally merged in a larger area over Scandinavia.	This small system was accompanied by another conjugate to it and lying to the north of it. This system produced 2·84 ins. of rain at Sumburgh Head on the 7th.

TABLE OF CYCLONIC SYSTEMS.—SEPTEMBER 1880.

No. XXVIII. September 6-7.	No. XXIX. September 11-12.	No. XXX. September 14-17.
Uncertain	Circular	Oval.
Probably large	Small	Large.
Shallow	Shallow	Deep. Lowest reading 28·95 ins.
West of the Farde Islands	Over Bay of Biscay	Over south-west of Ireland.
East-north-east	North-north-east	First easterly, then south, and then north-easterly.
Rapid	Rapid	Moderate.
The Shetland Isles and Western Norway	West and north of France and south-east of England.	South and west of the United Kingdom.
Passed on towards the Loffoden Isles	Filled up over North Sea	Filled up over the Cattegat.
Two days	Two days	Three days.
South-westerly in Scotland	Stiff North-west gales on coast of Bay of Biscay on 12th.	General cyclonic gales, chiefly from the north.
Showery		Very unsettled
Rain in North Scotland and west of Norway, but not very heavy.	Very heavy locally. More than an inch at several of our stations; 2·03 ins. at Shields.	Heavy at almost all stations.
		This system travelled due east to Yarmouth, then south to north of France, and finally passed off to Denmark.

TABLES OF GALES.

No. 17. (CYCLONIC SYSTEM, No. XXX.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Sept. 14–16, 1880.													
Aberdeen	9 a.m. (15th).	N.E. byN.	—	—	—	—	1 p.m. (15th).	N.N.E.	4	10 a.m. (15th).	N.E. by N.	34	—
Seaham	4 p.m. (16th).	N.N.W.	—	—	—	—	8 p.m. (16th).	N. by W.	4	4 p.m. (16th).	N.N.W.	36	—
Holyhead.	10 p.m. (14th).	N.N.E.	11 p.m. (14th).	N.W.byN.	42	2	2 a.m. (15th).	N.	4	Midt. (14th).	N.N.W.	43	—
	—	—	3 a.m. (15th).	N.	57	35	Midnt. (16th).	N. by W.	45	2 p.m. (15th).	N.N.W.	73	—
			3 p.m. (16th).	N. by W.	41	1							
Valencia	Noon (14th).	N.	—	—	—	—	Midnt. (14th).	N.N.W.	12	4, 5, and 8 p.m. (14th) and 9 p.m. (14th).	N.byW. N.N.W.	36	Strong winds were also recorded during the night of 13th–14th.
Scilly	1 a.m. (14th).	S.S.E.	—	—	—	—	2 p.m. (14th).	S.W.byW.	13	10 a.m. (14th).	S.W.byS.	39	—
			6 p.m. (14th).	N.W.b.W.	40	1							
			9 p.m. (14th).	N.W.	45	16							
			6 p.m. (15th).	N.W.	40	7							
	4 p.m. (14th).	W.S.W.	2 a.m. (16th).	N.W.byN.	40	1	5 p.m. (16th).	N.W.byN.	49	8 a.m. (15th).	N.W.b.W.	49	—
			5 a.m. (16th).	N.W.byN.	42	1							
			7 a.m. (16th).	N.W.byN.	40	1							
Falmouth.	1 a.m. (14th).	S. by E.	—	—	—	—	6 a.m. (14th).	S. by W.	5	4 a.m. (14th).	S. by E.	39	—
	8 a.m. (14th).	S.S.W.	11 a.m. (14th).	S.S.W.	41	1	4 p.m. (14th).	S.W. by S.	8	11 a.m. (14th).	S.S.W.	41	—
			1 a.m. (16th).	N.W.byN.	41	1							
	11 p.m. (14th).	N.W.b.N.	8 a.m. (16th).	N.W.byN.	41	7	10 p.m. (16th).	N.W.byN.	47	11 a.m. (16th).	N.N.W.	45	—
Yarmouth	11 a.m. (14th).	S.E.byS.	2 p.m. (14th).	S.E. by S.	43	5	8 p.m. (14th).	S. by W.	9	6 p.m. (14th).	S.E. by E.	46	—

TABLE OF ANTICYCLONIC SYSTEMS.—JULY–AUGUST 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XII. July 13-17.	No. XIII. July 21-24.	No. XIV. August 9-31.
Form	Circular	Irregular	Irregular.
Size	Small	Small	Large.
Height	Very small; readings not much above 30·2 ins.	Very small; readings at centre, about 30 ins.	Small.
Where first Observed	Over Shetlands	Isolated areas appeared in different parts of the kingdom.	Over Bay of Biscay.
Direction of Motion	Stationary	South-easterly	First northerly then easterly.
Rate of Motion	None.	Rapid	Very slow.
Regions passed over	The northern parts of the British Isles.	Central part of British Isles	Chiefly north of British Isles.
Termination	Disappeared over the North Sea, without reaching Scandinavia.	Passed to south of France	Passed on to Russia.
Accompanying Wind	Easterly and Northerly	Chiefly Easterly	Easterly.
" Weather	Frequent thunderstorms caused by a very slight depression in the south-east of England.	Cold for season, with frequent local thunderstorms.	Fine.
REMARKS			The centre of this anticyclone lay for some days over the north of Scotland, it then spread southwards and finally passed off eastwards.

TABLE OF ANTICYCLONIC SYSTEMS.—SEPTEMBER-OCTOBER 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XV. September 7-10.	No. XVI. September 22—October 1.
Form	Irregular	Irregular.
Size	Small	Large.
Height	Very small	Moderate.
Where first Observed	In south-west of United Kingdom	Over Bay of Biscay.
Direction of Motion	Easterly	Easterly.
Rate of Motion	Rapid	Very slow.
Regions passed over	Centre of British Isles	South of British Isles.
Termination	Passed on to Russia	Passed down over France.
Accompanying Wind	Variable	Chiefly South-westerly.
„ Weather	Fine	Dry, but foggy.
REMARKS	—	—

SECTION III.

REMARKS FOR JULY 1880.

(Tables A. to C., with Monthly Wind and Weather Charts.)

Wind.—The month opened with light Westerly winds in the south and Easterly in the north, produced by a slight depression (No. XXII.). As this passed on eastwards the direction drew into North, and the force increased to a fresh breeze. On the 5th light South-westerly winds were restored, and lasted until the 8th. Winds remained very light for the next four days. On the 13th light Northerly winds appeared in Ireland, and were succeeded by an Easterly current, which lasted up to the 15th. For the next eight days nothing but light airs were reported, the Easterly direction continuing in the north. From that to the end of the month the direction was generally South-westerly at all stations.

The wind chart for the month shows a nearly total absence of South-west winds at the three northern stations, and of due Southerly winds in the south, where also Easterly winds were very slightly represented.

Pressure.—The mean pressure for the month was uniform; the lowest value shown on the chart is 29·82 ins. at Leith, and the highest, 29·95 ins., at Jersey. The barometer was decidedly under its average level for the month to the extent of 0·06 in. in Southern Scotland and somewhat less on the Channel coast. The range of the mercury was considerable for the season, amounting to 1·12 ins., the highest reading being 30·28 ins., which was recorded at Scilly on the 5th, and at more than one station in the extreme north of Scotland on the 14th. The lowest reading was 29·16 ins. at Sumburgh Head on the 30th, so that it will be seen that the extreme range occurred in the northern district.

Movements of Depressions.—No depressions of any serious importance passed over us in July. Five are mentioned in the Table of Cyclonic Systems; all of these moved slowly, especially No. XXVI., which lay for two days over the Shetland Islands. None of the systems were accompanied by gales.

Temperature was not very different from its normal height and distribution. The mean in the neighbourhood of London was about 1° below the average, and the isotherm of 59° over Ireland and the north of England took very nearly the course of that of 60° on the charts in the Meteorological Atlas of the British Isles. The range was considerable at some stations, amounting to 30° at Cambridge. It was least at St. Ann's Head, where it was only 16°. The absolute highest reading was 80° at Nottingham on the 21st, and the lowest 40° at Wick on the same day.

Vapour Tension varied from 0·335 in. at Braemar and 0·340 in. at Sumburgh Head, to 0·465 in. on the Channel coast. At all the northern stations, except Stornoway, Laudale, and Rothesay, it was below 0·40 in., as was also the case at Roche's Point and Torquay. *Relative Humidity* reached 91 per cent. at Donaghadee and Armagh. It was least in London, where it fell to 79.

Rainfall was very heavy, exceeding 7 ins. in the North Midland counties and at Parsonstown, and 6 ins. in London. At Stornoway, however, the amount collected was only 1·36 ins. The falls took place principally in heavy thundershowers, as much as 2·19 ins. being recorded at Oxford on the 14th, while falls exceeding an inch in 24 hours were reported from no less than 23 stations in all parts of the country.

Sunshine.—The registration of bright sunshine by means of the Campbell Sunshine Recorder, as improved by Professor G. G. Stokes, F.R.S., having been instituted in the

month of April, we are able to add a table of monthly values of sunshine to this Report. It will be seen from it that the highest per-centage of possible duration of sunshine was attained in Jersey, St. Ann's Head coming very close after the Channel island.

TABLE showing the PREVALENCE of BRIGHT SUNSHINE at STATIONS in the BRITISH ISLANDS during the MONTH of JULY 1880.

STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.	STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.
Stornoway	154	29	Glasgow	162	31
Aberdeen	160	30	Silloth	143	29
Durham	118	24	Douglas	180	36
York	100	20	Stonyhurst	148	30
Kelstern	118	24	Llandudno	140	28
Hillington	152	30	Pembroke	257	51
Geldeston	—	—	Falmouth	228	48
Cambridge	180	36	Markree Castle	144	29
Leicester	141	28	Armagh	140	28
Churchstoke	174	35	Dublin	154	31
Cirencester	168	34	Parsonstown	157	31
Oxford	186	37	Valencia	217	43
London*	160	33	Jersey	248	52
Southampton	199	40			

* The values for London are the means of observations taken at Hampstead, Kew Observatory, and the London Institution, Finsbury Circus.

TABLE A., JULY.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of JULY 1880, together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).						TEMPERATURE In the Shade (In Degrees Fahrenheit).						HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes. Minimum. Reading.	Minimum. Date.	Extremes. Maximum. Reading.	Maximum. Date.	Range.	Mean for the Month.	Extremes. Minimum. Reading.	Minimum. Date.	Extremes. Maximum. Reading.	Maximum. Date.	Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
	ins.	ins.	D. H.	ins.	D. H.	ins.	°	°	D. H.	°	D. H.	°	in.	%	ins.
Valencia	29·905	29·442	27th, 10 p.m. to 11 p.m.	30·298	4th, 11 p.m. to Midt.	·856	58·9	47·9	22nd, 4 a.m.	71·3	16th, 6 p.m.	23·4	·406	81	3·978
Armagh	·861*	·397	28th, 11 a.m.	·222	4th, 11 p.m.	·825	56·6	45·5	21st, 5 a.m.	68·2	17th, 1 p.m.	22·7	·397	86	6·210
Glasgow	·813	·333	28th, 8 p.m.	·224	14th, 11 a.m. to 1 p.m.	·891	57·1	45·0	12th, 4 a.m.	73·2	17th, 3 p.m.	28·2	·366	79	3·961
Aberdeen	·836	·274	29th, 4 a.m.	·309	14th, 10 a.m. to 11 a.m.	1·035	55·1	43·8	9th, 4 a.m.	68·1	25th, 2 p.m.	24·3	·356	82	3·210
Falmouth	·939	·408	26th, 9 a.m.	·280	8 a.m. 5th, 10 a.m. 11 a.m.	·872	60·4	50·9†	16th, ?	70·7	17th, 4 p.m.	19·8	·421	81	4·225
Stonyhurst	·846	·469	29th, 11 a.m. Noon	·145	5th, 8 a.m. 9 a.m.	·676	58·0	48·8	21st, 2 a.m.	74·4	17th, 2 p.m.	25·6	·390	81	6·980
Kew	29·901	29·450	26th, 5 p.m.	30·195	5th, 8 a.m.	·745	61·6	48·6	21st, 5 a.m.	76·9	15th, 6 p.m.	28·3	·420	77	4·885

* Mean for one day is approximate. † Corrected reading of Phillips' minimum thermometer.

TABLE B., JULY.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The Values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Means of			Absolute Extremes.			
						Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·831	55·0	53·0	54·0	50·2	59·2	54·7	44·8	22nd	65·0	24th
	Dunrobin Castle S	29·842	47·4	55·4	51·4	50·8	61·0	55·9	44·7	31st	67·1	25th
1. SCOTLAND, E.	Braemar S	29·812	54·6	52·6	53·6	46·9	61·2	54·1	38·8	13th	71·7	17th
	Dundee S	29·828	58·8	54·1	56·5	50·8	65·1	58·0	45·3	9th	74·7	25th
	Glenalmond	29·831	56·8	54·2	55·5	48·9	62·9	55·9	41·2	2nd	74·2	17th
2. ENGLAND, N.E.	Seaham	29·833	59·7	55·2	57·5	51·5	63·4	57·5	45·4	4th	70·7	6th
	Durham*	29·826	60·9	53·7	57·3	50·0	66·5	58·3	43·4	10th	76·3	25th
	York	29·857	59·2	57·1	58·2	52·5	65·2	58·9	45·0	5th	71·4	25th
	Hull	29·864	61·2	57·5	59·4	53·0	67·2	60·1	45·5	23rd	74·8	25th
	Kelstern 𝔐	29·869	59·5	55·4	57·5	50·6	65·1	57·9	42·6	5th	71·7	25th
3. ENGLAND, E.	Hillington 𝔐	29·874	61·9	56·2	59·1	51·3	69·2	60·3	43·3	11th	76·5	15th
	Geldeston	29·892	62·1	58·0	60·1	52·9	68·7	60·8	40·1	21st	75·7	15th
	Chigwell Row	29·932	61·8	59·0	60·4	53·9	69·9	61·9	46·4	31st	79·0	16th
4. MIDLAND COUNTIES.	Wakefield 𝔐	29·860	59·6	57·3	58·5	52·7	65·1	58·9	45·1	2nd	70·4	25th
	Buxton 𝔐	—	56·9	56·4	56·7	50·0	65·2	57·6	40·0	4th	70·7	17th
	Cheadle 𝔐	29·867	57·0	55·9	56·4	51·3	64·3	57·8	45·6	31st	69·9	23rd
	Leicester	29·860	61·0	59·5	60·3	53·1	67·0	60·1	47·0	3rd	73·0	23rd
	Uppingham	29·874	59·4	56·2	57·8	51·8	67·1	59·5	46·3	5th	74·9	21st
	Oscott	29·871	59·3	57·6	58·5	52·4	67·1	59·8	46·4	5th	74·0	25th
	Churchstoke 𝔐	29·885	58·4	55·9	57·2	50·6	65·6	58·1	43·0	5th	72·4	17th
	Cheltenham 𝔐	29·883	61·4	58·3	59·9	51·7	68·7	60·2	41·2	5th	74·0	15th, 25th
5. ENGLAND, S.	Marlborough 𝔐	29·910	61·8	57·2	59·5	51·9	69·3	60·6	43·7	5th	75·3	15th
	Strathfield Turgiss 𝔐	29·915	63·6	58·9	61·3	51·6	70·7	61·2	44·3	5th	79·1	16th
	Ramsgate 𝔐	—	—	—	—	—	—	—	47·5	5th	76·1	16th
	Folkestone	29·929	61·8	58·2	60·0	54·5	67·0	60·8	48·0	5th	79·0	16th
	Southampton	29·917	62·3	58·8	60·6	53·5	69·4	61·5	47·0	16th	78·6	16th
	St. Leonards	29·932	61·6	59·3	60·5	55·8	65·8	60·8	48·1	31st	75·6	16th
6. SCOTLAND, W.	Laudale	29·824	57·8	56·2	57·0	50·5	63·5	57·0	45·2	2nd	69·9	22nd
	Rothesay S	29·844	59·0	55·3	57·2	49·8	65·5	57·7	44·1	2nd, 12th	71·6	17th
	Pinmore S	29·835	59·3	54·7	57·0	49·8	65·3	57·6	37·4	21st	74·9	16th
7. ENGLAND, N.W.	Scaleby 𝔐	29·823	58·7	56·1	57·4	51·8	65·0	58·4	45·7	31st	72·8	17th
	Douglas (Isle of Man)	29·934	58·3	55·3	56·8	51·5	62·9	57·2	44·6	21st	71·1	17th
	Llandudno 𝔐	29·856	59·9	57·7	58·8	54·0	64·3	59·2	49·0	21st	71·7	17th
8. ENGLAND, S.W.	St. David's	29·889	59·7	56·4	58·1	53·5	64·1	58·8	50·1	31st	72·4	17th
	Caermarthen 𝔐	29·883	62·4	56·9	59·7	52·5	67·6	60·1	44·4	11th	76·9	17th
	Dartmoor 𝔐	29·933	56·2	52·5	54·4	49·6	60·7	55·2	44·0	14th	69·0	16th, 17th
	Babbacombe 𝔐	29·928	63·0	56·8	59·9	53·4	68·2	60·8	47·1	31st	75·0	16th
9. IRELAND, N.	Londonderry	29·871	58·7	55·4	57·1	50·7	64·5	57·6	45·6	21st	74·0	25th
	Brookeborough	29·835	56·9	56·2	56·6	50·6	64·0	57·3	44·4	31st	73·9	17th
	Markree Castle	29·859	58·6	55·2	56·9	49·6	64·0	56·8	42·3	22nd	71·9	17th
10. IRELAND S.	Dublin	29·870	59·2	57·5	58·4	53·5	64·3	58·9	47·2	31st	68·7	27th, 28th
	Parsonstown	29·883	58·6	56·4	57·5	52·2	65·7	59·0	41·0	30th	75·0	17th
CHANNEL	Jersey (St. Aubin's)	30·002	63·8	59·0	61·4	56·1	68·9	62·5	51·7	5th	77·5	17th

NOTE.—The stations marked thus 𝔐 are in connexion with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of JULY 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·344	·340	·342	80	84	82	7·9	8·2	8·1	3·550	·760	28th	15	0	4	1	0	18	2	8	9	11	9	5	0	3	12	5
·405	·387	·396	86	88	87	—	—	—	3·500	·610	6th	18	0	0	0	—	—	0	6	13	20	5	1	5	6	6	0
·335	·343	·339	79	87	83	7·1	7·1	7·1	4·130	·880	3rd	21	0	0	3	0	8	0	7	26	7	0	7	5	7	3	0
·380	·375	·378	77	89	83	8·0	9·5	8·8	3·050	·750	1st	12	0	0	5	0	19	0	0	13	11	13	1	7	8	9	0
·357	·380	·369	78	90	84	8·0	7·4	7·7	4·038	·655	27th	19	0	0	2	0	18	0	3	8	14	1	2	8	3	3	20
·414	·398	·406	81	91	86	7·2	6·6	6·9	3·752	·400	12th	21	0	0	7	1	11	1	4	6	3	3	6	11	6	2	21
·414	·385	·400	78	93	86	8·3	6·8	7·6	4·177	·630	12th	19	0	0	4	0	14	0	5	10	4	1	10	17	5	5	5
·420	·410	·415	84	87	86	7·9	7·6	7·8	5·210	·950	26th	22	0	0	6	0	17	0	4	4	6	3	15	7	20	3	0
·440	·416	·428	82	88	85	8·1	6·6	7·4	4·630	·960	14th	22	0	0	3	0	14	0	1	6	7	6	1	9	15	9	8
·426	·404	·415	84	92	88	7·6	6·9	7·3	5·375	·944	7th	23	0	0	7	0	9	0	1	2	5	10	2	19	13	8	2
·459	·419	·439	83	93	88	8·2	8·3	8·3	5·315	1·110	14th	22	0	1	14	0	15	0	0	7	2	9	3	26	3	12	0
·436	·426	·431	78	88	83	8·0	6·1	7·1	4·290	1·340	26th	21	0	1	11	1	12	0	1	3	9	5	5	19	11	5	4
·440	·427	·434	80	85	83	7·7	8·5	8·1	4·960	·970	21st	24	0	0	10	0	16	0	2	3	3	7	5	21	13	4	5
·401	·403	·402	79	85	82	7·8	6·6	7·2	7·190	1·800	23rd	20	0	0	5	0	12	0	6	5	10	1	8	14	14	4	0
·412	·418	·415	89	92	90	8·1	7·6	7·9	7·300	1·260	26th	17	0	0	3	0	12	0	0	0	4	9	0	4	16	29	0
·425	·418	·422	91	94	92	7·7	7·0	7·3	6·120	1·300	17th	25	0	0	10	0	12	2	1	3	7	6	6	11	10	15	3
·416	·418	·417	78	83	81	8·5	8·4	8·5	6·740	1·210	14th	24	0	0	9	0	20	0	0	6	3	2	3	23	6	5	14
·439	·415	·427	87	91	89	8·9	7·6	8·3	6·642	1·267	13th	26	0	0	9	0	20	0	2	4	4	1	8	16	19	2	6
·420	·416	·418	84	87	85	8·5	8·0	8·3	4·630	·590	26th	24	0	0	9	0	21	1	4	9	4	1	9	22	3	9	1
·398	·388	·393	82	87	84	8·2	6·4	7·3	5·157	·936	14th	21	0	0	4	0	9	0	1	0	0	8	4	20	9	16	4
·444	·426	·435	82	88	85	7·0	7·0	7·0	5·080	·790	14th	24	0	1	4	1	9	0	2	0	0	0	10	9	22	3	16
·431	·411	·421	79	87	83	8·1	6·3	7·2	4·370	·660	13th	21	0	0	6	0	14	0	0	3	3	0	8	22	11	2	13
·449	·442	·446	77	89	83	7·8	7·5	7·7	4·902	1·095	14th	21	0	1	8	0	12	0	0	2	1	1	8	22	25	3	0
—	—	—	—	—	—	—	—	—	2·350	·530	25th	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·462	·443	·453	84	91	87	7·2	6·6	6·9	2·630	·410	26th	21	0	0	7	0	12	1	2	4	7	1	11	23	12	2	0
·443	·430	·437	80	87	83	8·2	6·3	7·3	5·249	·632	25th	20	0	2	5	1	15	0	1	4	0	2	4	33	8	8	2
·451	·436	·444	83	86	84	7·2	6·3	6·8	4·001	1·231	21st	19	0	1	8	0	11	3	2	3	3	3	6	25	16	3	1
·409	·397	·403	85	88	87	4·9	5·3	5·1	3·800	·840	7th	16	0	0	0	4	7	0	3	0	10	4	5	2	6	5	27
·400	·391	·396	81	89	85	—	—	—	2·470	·592	5th	14	0	0	4	—	—	0	2	13	9	3	4	3	7	19	2
·398	·378	·388	79	88	84	—	—	—	3·280	·690	27th	18	—	—	—	—	—	—	14	2	4	5	11	4	1	21	0
·403	·398	·401	82	88	85	8·3	8·0	8·2	6·020	1·310	13th	20	0	0	1	1	20	1	1	7	11	0	1	14	8	1	19
·404	·396	·400	83	90	87	7·7	7·0	7·4	4·464	·685	27th	17	0	0	3	0	11	0	2	6	7	4	5	7	12	12	7
·413	·410	·412	80	86	83	6·4	7·4	6·9	6·665	1·155	14th	19	0	0	7	2	10	0	9	1	5	4	3	7	26	7	0
·436	·426	·431	85	93	89	6·4	5·8	6·1	4·837	1·176	17th	17	0	0	3	1	9	0	5	7	4	5	3	14	17	7	0
·426	·420	·423	76	91	83	7·5	6·5	7·0	7·240	1·010	27th	21	0	0	4	3	15	0	6	2	1	2	5	16	15	2	13
·386	·373	·380	86	94	90	8·4	8·5	8·5	6·400	1·830	25th	18	0	0	1	0	19	0	2	1	2	2	2	18	22	12	1
·436	·407	·422	77	88	82	6·7	5·5	6·1	2·560	·820	25th	22	0	0	3	1	8	0	1	4	5	1	4	24	18	3	2
·404	·392	·398	82	89	85	8·8	7·5	8·2	6·230	1·200	26th	23	0	1	2	0	16	0	4	13	3	2	4	5	11	13	7
·409	·416	·413	89	92	91	9·3	8·5	8·9	4·329	·720	27th	24	0	0	5	0	25	1	5	8	3	1	1	4	12	10	18
·397	·385	·391	81	88	85	8·6	8·4	8·5	4·946	·734	26th	21	0	0	5	0	18	0	7	3	2	1	3	2	1	10	33
·409	·412	·411	81	87	84	7·5	6·2	6·9	6·087	1·310	17th	24	0	0	6	0	10	0	4	3	5	3	4	6	21	11	5
·407	·396	·402	83	87	85	9·1	6·7	7·9	7·339	1·030	17th	25	0	0	1	1	20	0	5	4	0	3	7	10	13	9	11
·460	·437	·449	78	88	83	6·6	5·5	6·1	2·694	·590	3rd	13	0	0	3	2	9	0	2	2	1	1	8	21	16	5	6

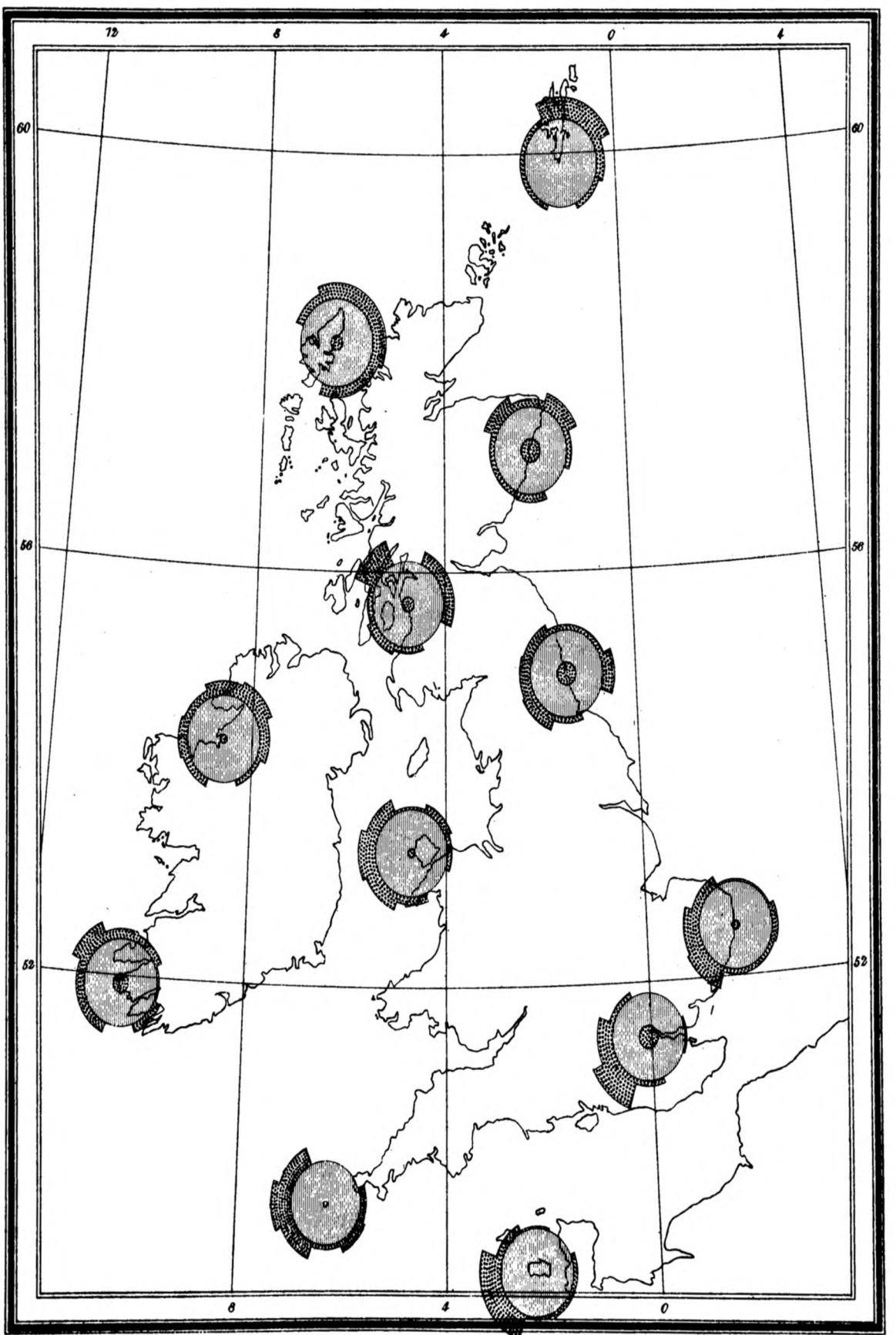
TABLE C., JULY.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS during the Month of JULY 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE. At 8 a.m.	AIR TEMPERATURE. Means of Minima.	AIR TEMPERATURE. Means of Maxima.	AIR TEMPERATURE. Means of Min. and Max. combined.	AIR TEMPERATURE. Absolute Extremes. Minimum.	AIR TEMPERATURE. Absolute Extremes. Date.	AIR TEMPERATURE. Absolute Extremes. Maximum.	AIR TEMPERATURE. Absolute Extremes. Date.	TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL. Total Fall in the Month.	RAINFALL. Maximum Fall in One Day.	RAINFALL. Date.	WEATHER. No. of Days of Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	WIND. No. of Observations of North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND N.	Sumburgh Head	29·824	53·8	48·4	57·9	53·2	42	6th	62	16th	·340	82	8·5	1·97	1·03	28th	14	0	0	0	0	19	0	9	9	4	2	1	2	2	2	0
	Wick	29·818	55·5	49·2	61·3	55·3	40	21st	67	16th	·370	84	7·6	2·33	0·64	28th	16	0	0	1	3	16	1	5	4	6	4	3	1	0	6	2
	Stornoway	29·825	56·1	50·9	60·3	55·6	45	15th, 31st	69	26th	·404	89	7·4	1·36	0·25	28th, 29th	11	0	0	0	1	17	0	6	6	6	4	4	0	0	3	2
1. SCOTLAND, E.	Nairn	29·823	55·4	50·6	62·3	56·5	43	15th	72	16th, 17th	·358	82	7·3	4·35	0·84	28th	20	0	0	1	4	16	0	1	6	5	0	0	0	2	3	14
	Aberdeen	29·822	57·0	51·5	63·3	57·4	45	9th	70	25th	·372	80	8·0	3·27	1·07	28th	18	0	0	2	1	16	0	3	7	3	0	3	2	2	6	5
	Leith	29·816	57·6	50·8	65·2	58·0	45	9th	75	25th	·398	83	7·3	2·92	0·44	18th	21	0	0	3	1	15	0	1	5	10	4	0	0	9	2	0
2. ENGLAND, N.E	Shields	29·834	57·3	51·9	62·7	57·3	46	31st	68	25th	·393	83	7·6	4·23	0·53	8th	23	0	3	5	1	14	0	2	2	6	0	2	6	5	4	4
	York	29·852	58·0	52·6	65·4	59·0	45	5th	72	25th	·424	88	7·8	5·22	0·93	26th	21	0	0	2	4	18	0	2	2	4	1	7	6	8	1	0
	Spurn Head	29·851	59·0	54·8	63·6	59·2	51	2nd, 5th, 11th.	71	25th	·439	89	7·0	3·80	0·86	14th	20	0	0	11	0	11	1	4	2	3	1	5	9	5	1	1
3. ENGLAND, E.	Yarmouth	29·888	60·2	54·8	65·6	60·2	47	5th	73	18th, 24th	·438	85	4·8	4·53	0·69	26th	23	0	0	5	8	2	0	1	1	3	2	2	9	8	4	1
	Cambridge	29·885	59·6	53·0	70·3	61·7	46	2nd, 5th	76	25th	·440	86	7·9	4·10	0·66	3rd	26	0	0	12	0	13	0	2	1	2	2	4	13	6	1	0
4. MIDLAND COUNTIES.	Nottingham	29·876	61·2	52·5	70·8	61·7	45	2nd, 31st	80	21st	·455	85	8·2	6·60	1·30	26th	25	0	0	10	2	20	0	1	2	1	4	6	9	4	3	1
	Oxford	29·888	59·2	53·7	67·0	60·4	47	5th, 31st	72	25th	·443	83	7·7	6·42	2·19	14th	26	0	1	3	6	21	0	0	1	1	3	8	8	9	1	0
5. ENGLAND, S.	London	29·911	61·3	54·6	71·5	63·1	47	5th, 31st	77	21st, 23rd, 25th.	·429	79	7·0	4·02	0·74	29th	23	0	3	10	3	15	0	0	0	1	0	2	14	7	2	5
	Dover	29·917	61·2	57·7	66·0	61·9	51	5th, 31st	74	16th	·452	84	4·5	2·41	0·37	25th	21	0	0	4	0	4	0	2	1	2	2	0	12	11	1	0
	Hurst Castle	29·900	59·6	56·7	65·8	61·3	51	5th, 31st	73	16th	·465	91	6·2	3·44	0·84	29th	20	0	0	2	0	6	2	1	2	3	1	0	7	12	5	0
6. SCOTLAND, W.	Ardrossan	29·818	57·3	52·6	64·3	58·5	48	12th, 21st	70	16th, 22nd	·388	82	7·5	2·52	0·77	27th	15	0	0	3	1	12	0	0	5	5	0	2	4	2	11	2
7. ENGLAND, N.W	*Hawes Junction	28·619	53·3	49·2	60·1	54·7	42	5th	70	17th	·370	91	8·5	8·05	1·08	8th	25	0	1	2	1	22	0	1	4	7	0	2	7	10	0	0
	Barrow-in-Furness	29·838	57·5	54·5	65·2	59·9	51	10th, 11th, 21st.	74	16th	·407	86	6·9	3·41	0·68	18th	18	0	0	1	1	12	2	3	4	2	2	1	8	4	7	0
	Liverpool	29·847	58·8	54·4	64·6	59·5	50	8th, 17th	73	17th	·402	81	6·9	5·10	0·85	26th	21	0	0	0	3	12	0	0	0	5	4	4	5	10	3	0
	Holyhead	29·855	57·5	54·6	62·8	58·7	52	8th, 31st	69	22nd	·419	88	6·9	4·09	0·74	17th	22	0	0	2	2	14	0	1	3	2	0	3	7	8	6	1
8. ENGLAND, S.W.	Pembroke	29·880	58·0	54·7	62·3	58·5	52	1st	68	17th	·427	88	5·4	3·46	0·50	12th	15	0	0	1	3	6	1	1	2	1	1	3	3	10	7	3
	Prawle Point	29·913	59·3	54·0	64·5	59·3	49	14th	75	4th	·454	90	6·3	2·06	0·44	25th	18	0	0	2	0	10	0	0	2	1	1	4	9	9	3	2
9. IRELAND, N.	Donaghadee	29·846	56·9	50·8	62·7	56·8	45	31st	69	28th	·421	91	6·9	3·80	0·71	26th	22	0	0	0	2	12	0	6	2	5	1	3	4	6	4	0
	Mullaghmore	29·854	57·5	54·3	63·0	58·7	49	30th	70	17th, 25th	·402	85	7·4	5·08	0·63	23rd	23	0	0	2	4	12	1	6	7	5	2	0	3	4	3	1
10. IRELAND, S.	Valencia	29·903	59·4	53·2	64·9	59·1	46	22nd	69	20th	·414	85	7·3	3·95	0·74	22nd	17	0	0	2	0	11	1	4	3	1	3	1	4	4	8	3
	Roche's Point	29·885	58·6	54·1	69·5	61·8	50	31st	77	20th	·399	81	6·8	4·99	0·96	29th	20	0	1	6	0	6	1	6	0	1	1	0	3	6	14	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·871	59·7	55·3	64·1	59·7	52	19th	68	16th, 24th, 27th.	·448	85	8·2	2·81	1·30	25th	20	0	0	0	0	14	1	0	0	2	3	1	8	10	7	0
	Jersey	29·946	60·6	55·9	66·2	61·1	52	5th, 10th	75	16th, 21st	·464	88	6·5	2·62	0·59	25th	15	0	0	5	1	8	5	1	0	2	2	1	11	11	3	0

* Hawes Junction is 1,135 feet above Mean Sea Level and the barometric observations at this station are not corrected for altitude.

MONTHLY WIND CHART FOR JULY, 1880.



To face p. 84.

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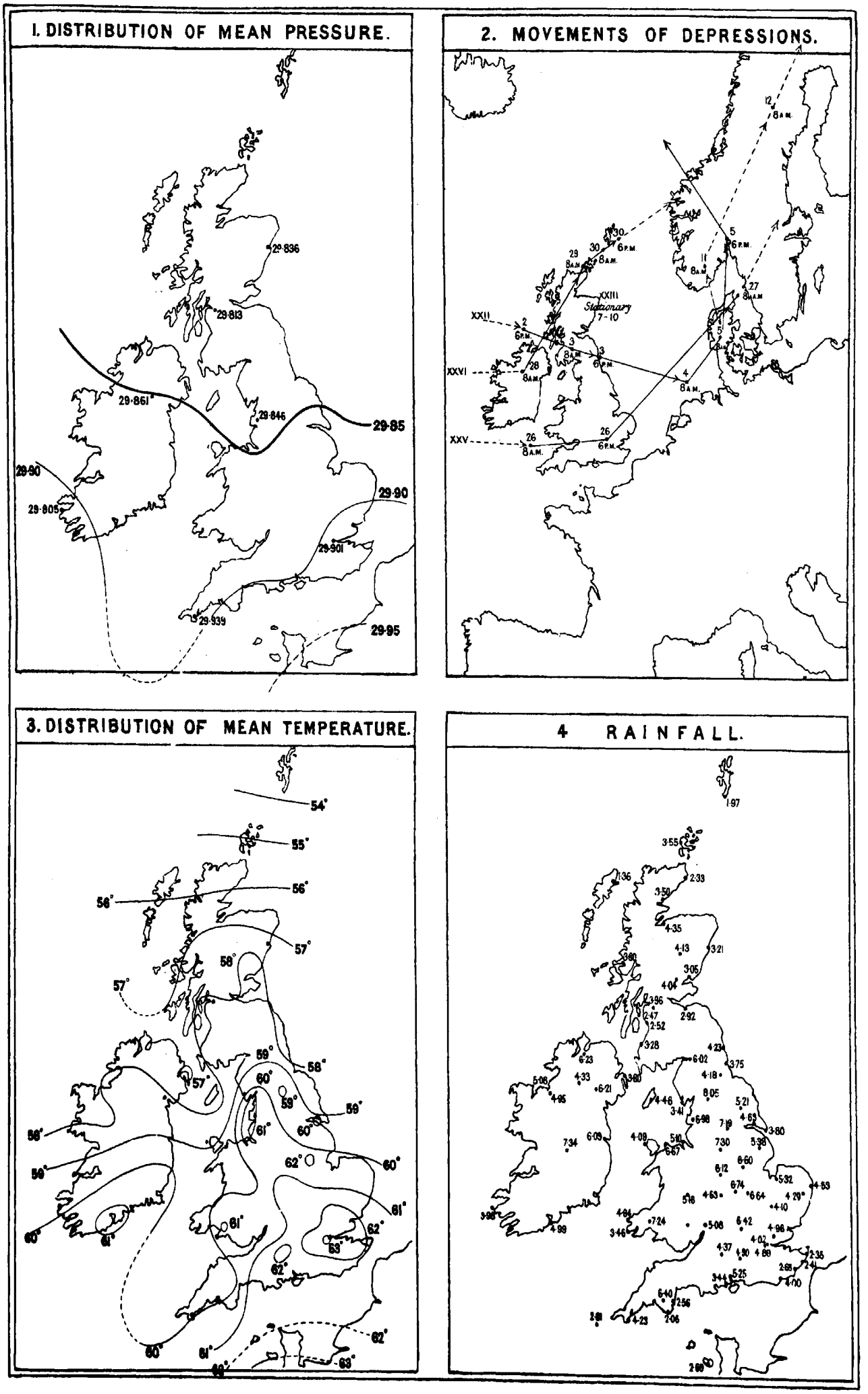
Monthly Weather Chart, July, 1880

Monthly Summary



To follow Wind Chart for July.

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REMARKS FOR AUGUST 1880.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—During the whole month the winds were for the most part exceedingly light. For the first week the direction was generally from South-west or West, and on the 7th, during the passage over Central England of depression No. XXVII., a strong Westerly wind, amounting at some stations to a slight gale, was felt along the Channel coast. On the 11th Easterly winds set in, at first in the south as the anticyclone first showed itself in the north of Scotland, and from that date till the end of the month the vane at almost all stations remained between North and East. The wind-roses show decided maxima of frequency for Easterly points, excepting at Valencia and in the extreme north of Scotland.

Pressure was most remarkably uniform, the isobar of 30 ins. encircling the entire British Islands, except Stornoway, Valencia, and the southern English counties south of a line from Bristol to the Thames. Accordingly readings in the south of England were only 0·02 in. above their normal value, but in the north of Scotland the difference was nearly ten times as great, being over 0·18 in. in the Shetlands and over the Moray Firth.

The extreme readings were moderate, the minima were all recorded on the 7th during the passage of depression No. XXVII. above referred to, and the lowest were at the southern stations. The maxima were low, none reaching 30·4 ins. The range was small, only just exceeding one inch at a few stations.

Movements of Depressions.—Owing to the persistence of anticyclonic conditions during the month, there were extremely few depressions to be noticed. One on the 7th (No. XXVII.) passed over the central portion of England, and at the same time another made its appearance off the north coast of Scotland, producing a torrential downpour of rain at Sumburgh Head.

Temperature was generally about 2° above its average value. Its distribution did not differ materially from that for the month, as shown in the Atlas already quoted. The maxima were nowhere very high, and occurred at very various dates. The absolutely highest points reached were 82° at Londonderry on the 15th and 81° in London 28th, and at Aberdeen on the 10th. The minima were decidedly high, falling below 40° at only three stations, Braemar, Glenalmond, and Markree, while in several places they were above 50°, even 56° at Scilly. Range was not very large. It approached 30° at Cambridge, at Scilly it was only 16°.

Vapour Tension was very low, owing to the persistence of dry anticyclonic conditions. It was below 0·40 in. at Nairn and Glenalmond, and only exceeded 0·50 in. at Scilly and in the Channel Islands. *Relative Humidity* was above 90 per cent. in a few isolated localities, such as Uppingham and York. It did not come out as low as 80 anywhere.

Rainfall.—The month was exceedingly dry in all parts. At Valencia, however, the fall was 4·89 ins., but at Wick and Leith it was only 0·28 in., and at St. Ann's Head only 0·20 in. Some heavy falls were noted locally, especially on the 7th, when 2·84 ins. fell at Sumburgh Head, 2·33 ins. at Cheadle, and no less than seven stations reported amounts exceeding an inch.

Sunshine.—The amount was not as great as might have been expected from the general dryness of the weather, the dull week in the middle of the month having reduced the totals. The highest per-centage of possible duration (50) was registered at St. Ann's Head, and the least (28) in London and Leicester.

TABLE showing the PREVALENCE of BRIGHT SUNSHINE at STATIONS in the BRITISH ISLANDS during the MONTH of AUGUST 1880.

STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.	STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.
Stornoway - - -	145	30	Southampton - -	189	43
Aberdeen - - -	138	30	Glasgow - - -	141	31
Glenalmond - -	—	—	Silloth - - -	191	42
Durham - - -	139	31	Douglas - - -	194	43
York - - -	219	48	Stonyhurst - -	203	45
Kelstern - - -	155	34	Llandudno - -	203	45
Hillington - - -	136	30	Pembroke - - -	229	50
Geldeston - - -	171	38	Falmouth - - -	190	44
Cambridge - - -	149	33	Markree Castle - -	156	34
Leicester - - -	128	28	Armagh - - -	172	38
Churchstoke - -	147	32	Dublin - - -	199	44
Cirencester - - -	152	33	Parsonstown - -	168	37
Oxford - - -	145	32	Valencia - - -	185	41
London* - - -	126	28	Jersey - - -	166	38

* The value for London is the mean of observations taken at Hampstead and Kew Observatory.

TABLE A., AUGUST.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of AUGUST 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).						TEMPERATURES In the Shade (In Degrees Fahrenheit).						HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.				Range.	Mean for the Month.	Extremes.				Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
		Minimum.		Maximum.				Minimum.		Maximum.					
		Reading.	Date.	Reading.	Date.			Reading.	Date.	Reading.	Date.				
Valencia - -	ins. 30·015	ins. 29·354	D. H. 7th, 8 a.m.	ins. 30·300	D. H. 10th, 10 p.m.	ins. ·946	° 62·8	° 50·1	D. H. 9th, 6 a.m.	° 77·2	D. H. 15th, 3 p.m.	° 27·1	in. ·480	% 84	ins. 4·893
Armagh - -	·040	·435	7th, 2 p.m.	·318	11th, 11 a.m.	·883	60·9*	46·9	2nd, 5 a.m.	74·5	15th, 2 p.m.	27·6	·440	83	1·070
Glasgow - -	·023	·368	7th, 5 p.m.	·337	12th, 7 a.m.	·969	59·7	44·0	1st, 6 a.m.	76·4	14th, 4 p.m.	32·4	·402	79	0·829
Aberdeen - -	·043*	·353	7th, 5 p.m. 6 p.m.	·337†	12th, 8 a.m. Noon	1·024	58·1	48·0	3rd, 4 a.m.	75·0	10th, 1 p.m.	27·0	·403	82	0·870
Falmouth - -	·012	·440	7th, 2 p.m.	·346	10th, 9 a.m. 10 a.m.	·906	62·4	55·7	7th, 2 a.m.	73·3	13th, 2 p.m.	17·6	·463	82	0·535
Stonyhurst - -	30·030	·308	7th, 5 p.m.	·323†	10th, Midt.	1·015	60·8‡	48·0	10th, 5 a.m.	77·0	11th, 3 p.m. 14th, 3 p.m.	29·0	·413	78	2·230
Kew - -	29·998	29·204	7th, 9 p.m.	30·314	10th, 8 a.m. 10 a.m.	1·110	62·6	49·7	3rd, 4 a.m.	77·6§	28th, 3 p.m.	27·9	·436	77	0·560

* Means for two days are approximate.
‡ Mean for one day is approximate.
† Approximate reading, trace rather faint.
§ Probable reading.

TABLE B., AUGUST.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
						Means of			Absolute Extremes.			
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	30·019	58·6	56·6	57·6	53·8	63·4	58·6	48·0	1st	70·8	12th
	Dunrobin Castle S	30·037	61·0	58·2	59·6	54·2	64·7	59·5	46·7	7th	75·3	10th
1. SCOTLAND, E.	Braemar S	30·015	58·1	55·9	57·0	49·6	65·8	57·7	39·5	31st	75·5	28th
	Dundee S	30·043	61·3	57·0	59·2	53·2	68·2	60·7	45·3	1st	76·8	10th, 11th
	Glenalmond	30·034	59·2	56·4	57·8	50·7	65·9	58·3	39·0	1st	75·0	11th, 12th
2. ENGLAND, N.E.	Seaham	30·041	61·0	58·0	59·5	53·6	64·2	58·9	45·8	20th	74·3	10th
	Durham*	30·035	62·8	54·9	58·9	51·5	67·7	59·6	42·1	20th	76·2	10th, 11th
	York	30·043	61·8	59·1	60·5	54·0	69·5	61·8	46·5	3rd	79·0	11th
	Hull	30·042	63·1	59·9	61·5	55·8	68·6	62·2	46·0	1st	76·8	10th
	Kelstern 𝔐	30·038	60·6	57·2	58·9	53·5	67·0	60·3	45·3	1st	78·2	26th
3. ENGLAND, E.	Hillington 𝔐	30·007	63·8	57·7	60·8	53·4	69·8	61·6	43·4	3rd	78·3	31st
	Geldeston	30·003	63·3	59·4	61·4	55·7	68·3	62·0	47·0	3rd	76·8	10th
	Chigwell Row	—	—	—	—	—	—	—	—	—	—	—
4. MIDLAND COUNTIES.	Wakefield 𝔐	30·048	61·7	59·2	60·5	54·4	68·8	61·6	42·5	1st	78·6	11th
	Buxton 𝔐	30·053	59·1	57·5	58·3	51·9	67·2	59·6	45·1	25th	76·6	11th
	Cheadle 𝔐	30·029	58·8	58·2	58·5	52·9	67·1	60·0	47·0	7th	78·0	11th
	Leicester	30·013	61·6	61·1	61·4	55·0	68·8	61·9	48·6	7th	78·2	11th
	Uppingham	30·021	60·6	57·7	59·2	54·0	69·0	61·5	47·9	1st	78·4	11th
	Oscott	30·026	59·9	58·8	59·4	54·2	68·3	61·3	47·2	24th	77·6	11th
	Churchstoke 𝔐	30·050	59·1	58·5	58·8	52·9	67·9	60·4	43·2	24th	75·9	11th
	Cheltenham 𝔐	30·018	61·0	59·6	60·3	53·4	70·5	62·0	44·2	3rd	79·1	11th
5. ENGLAND, S.	Marlborough 𝔐	30·018	60·6	58·9	59·8	54·1	70·8	62·5	46·0	31st	77·7	10th
	Strathfield Turgiss 𝔐	30·004	63·3	59·9	61·6	54·2	72·4	63·3	43·5	3rd	78·8	28th
	Ramsgate 𝔐	29·993	64·8	61·5	63·2	58·5	69·9	64·2	49·1	2nd	76·1	5th
	Folkestone	29·977	64·3	60·3	62·3	56·9	71·3	64·1	49·3	2nd	79·7	28th
	Southampton	29·995	63·0	61·2	62·1	55·5	72·6	64·1	47·1	3rd	79·1	11th
	St. Leonards	29·978	65·2	61·9	63·6	57·7	71·9	64·8	51·2	3rd, 9th	80·5	28th
6. SCOTLAND, W.	Laudale	30·017	61·9	60·0	61·0	53·9	67·9	60·9	43·2	1st	78·9	12th
	Rothesay S	30·048	61·7	58·8	60·3	53·5	69·1	61·3	42·1	1st	79·1	14th
	Pinmore S	30·033	63·3	57·2	60·3	49·5	70·5	60·0	41·4	21st, 22nd	80·9	13th
7. ENGLAND, N.W.	Scaleby 𝔐	30·033	61·4	58·0	59·7	52·1	68·1	60·1	44·0	3rd	77·0	14th
	Douglas (Isle of Man)	30·028	61·7	59·3	60·5	53·9	66·8	60·4	45·2	9th	77·5	14th
	Llandudno 𝔐	30·032	61·9	60·6	61·3	56·1	66·6	61·4	50·5	1st	71·0	10th
8. ENGLAND, S.W.	St. David's	30·021	63·1	59·9	61·5	56·1	67·4	61·8	50·9	9th	75·9	15th
	Caermarthen 𝔐	30·014	64·7	60·4	62·6	55·4	71·1	63·3	49·1	9th	79·5	28th
	Dartmoor 𝔐	30·023	58·3	56·4	57·4	52·5	64·2	58·4	48·0	10th	71·0	11th
	Babbacombe 𝔐	30·011	61·5	61·0	61·3	56·6	68·6	62·6	50·8	9th	76·6	31st
9. IRELAND, N.	Londonderry	30·041	63·9	58·9	61·4	53·6	70·3	62·0	47·8	2nd	82·0	15th
	Brookeborough	30·006	60·6	60·4	60·5	53·2	69·9	61·6	41·9	2nd	79·4	11th, 28th
	Markree Castle	30·016	62·5	59·2	60·9	52·5	70·7	61·6	39·8	9th	80·2	11th
10. IRELAND, S.	Dublin	30·047	61·5	60·5	61·0	56·1	66·8	61·5	49·0	20th	73·4	10th
	Parsonstown	30·036	62·3	59·5	60·9	55·1	70·6	62·9	45·4	9th	79·6	15th
CHANNEL	Jersey (St. Aubin's)	30·013	63·8	61·6	62·7	58·7	68·8	63·8	53·2	3rd	75·7	5th

NOTE.—The stations marked thus 𝔐 are in connexion with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of AUGUST 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

Tension of Vapour.			Relative Humidity.			Amount of Cloud (0 to 10).			Rainfall.			Weather. No. of Days of							Wind. No. of observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·419	·400	·410	85	87	86	7·6	6·6	7·1	1·000	·710	5th	6	0	0	1	5	18	0	2	2	2	10	16	4	8	7	11
·462	·441	·452	86	91	89	—	—	—	1·080	·370	7th	6	0	0	1	—	—	0	5	20	9	3	3	10	9	3	0
·379	·387	·383	78	86	82	5·6	6·1	5·9	1·210	·750	7th	6	0	0	0	4	3	0	1	14	9	9	9	9	10	1	0
·427	·414	·421	79	89	84	8·7	8·6	8·7	0·900	·300	2nd	7	0	1	0	0	22	0	0	0	9	24	2	14	8	5	0
·421	·409	·415	83	89	86	6·5	6·5	6·5	0·128	·067	5th	7	0	0	1	1	8	0	1	2	22	12	6	7	11	1	0
·445	·442	·444	83	91	87	6·5	6·0	6·3	1·984	1·000	5th	15	0	0	3	6	12	0	10	10	3	1	3	3	5	1	26
·455	·412	·434	80	95	88	8·0	6·7	7·4	1·928	·700	5th	13	0	0	4	3	20	0	7	24	3	0	2	6	3	9	8
·448	·451	·450	82	90	86	6·5	6·1	6·3	1·660	·580	7th	10	0	0	2	2	10	0	12	17	11	1	6	2	8	5	0
·464	·446	·455	80	87	84	6·2	6·1	6·2	1·810	·450	6th	9	0	0	2	6	12	0	0	27	1	2	1	2	8	6	15
·446	·448	·447	85	95	90	7·1	7·1	7·1	1·877	·736	26th	9	0	0	3	2	14	0	4	32	6	1	1	6	5	5	2
·479	·457	·468	82	96	89	7·5	7·5	7·5	1·825	·890	7th	13	0	0	6	2	17	0	0	35	3	4	0	5	4	9	2
·463	·465	·464	80	92	86	7·0	5·5	6·3	1·900	·800	7th	9	0	0	5	3	12	0	11	22	6	2	2	3	6	7	3
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·439	·441	·440	80	87	84	7·4	6·5	7·0	1·570	·840	7th	13	0	0	2	1	13	0	17	17	6	2	2	6	8	4	0
·421	·424	·423	84	90	87	7·2	5·9	6·6	2·640	1·490	7th	6	0	0	3	2	12	0	2	1	28	2	0	2	9	12	6
·427	·427	·427	86	88	87	7·3	4·9	6·1	3·420	2·330	7th	7	0	0	5	1	7	1	3	8	31	0	2	5	2	6	5
·441	·454	·448	81	84	83	8·6	6·3	7·5	1·660	·660	7th	10	0	0	3	1	17	0	5	29	0	2	0	7	3	5	11
·462	·450	·456	88	94	91	8·4	6·5	7·5	1·577	·579	7th	8	0	0	3	0	13	0	14	25	2	0	0	5	3	6	7
·438	·435	·437	85	88	86	8·5	6·3	7·4	0·990	·330	7th	7	0	0	1	1	15	2	8	31	5	0	3	3	5	6	1
·426	·427	·427	85	87	86	8·0	4·9	6·5	1·237	·873	7th	4	0	0	2	3	12	0	3	13	10	5	0	4	3	4	20
·449	·432	·441	84	85	84	7·9	5·0	6·5	0·490	·150	6th	5	0	0	2	3	11	0	7	19	0	1	2	3	7	5	18
·445	·443	·444	84	89	87	8·6	4·7	6·7	1·350	·410	5th	8	0	0	3	1	11	0	2	12	4	0	1	0	4	1	38
·467	·456	·462	81	88	85	8·1	4·4	6·3	1·029	·511	25th	9	0	0	1	3	10	0	0	40	2	0	2	8	6	4	0
·548	·513	·531	90	94	92	7·1	5·9	6·5	2·290	1·070	24th	7	0	0	0	1	10	0	2	35	0	0	1	8	1	0	15
·502	·481	·492	83	92	88	7·0	4·8	5·9	1·319	·364	24th	8	0	0	4	4	8	0	28	12	5	1	1	5	6	4	0
·463	·465	·464	81	86	83	7·7	3·7	5·7	0·938	·242	5th	8	0	0	3	5	9	1	5	33	1	2	1	6	2	8	4
·484	·470	·477	78	85	81	6·7	5·5	6·1	0·552	·257	7th	8	0	0	3	4	12	1	14	22	4	0	1	5	10	6	0
·491	·456	·474	88	88	88	5·6	5·7	5·7	1·680	·500	4th	13	0	0	1	3	7	0	0	0	7	3	3	9	5	2	33
·457	·439	·448	82	88	85	—	—	—	1·795	1·180	4th	5	0	0	1	—	—	0	3	10	13	6	3	6	6	9	6
·452	·420	·436	78	89	84	—	—	—	0·530	·190	5th	5	—	—	—	—	—	—	11	5	1	4	4	19	4	14	0
·444	·427	·436	82	88	85	6·2	4·6	5·4	1·270	·550	4th	8	0	0	0	8	11	0	5	10	19	0	0	2	9	1	16
·441	·429	·435	80	85	83	6·8	5·5	6·2	0·681	·190	4th	8	0	0	2	4	13	0	1	7	21	3	2	6	3	6	13
·448	·450	·449	81	85	83	6·2	3·4	4·8	1·855	1·170	7th	5	0	0	0	8	7	0	8	6	21	10	1	2	11	3	0
·487	·486	·487	84	93	89	5·7	5·1	5·4	0·630	·215	6th	9	0	0	1	5	6	1	7	14	16	5	1	6	6	3	4
·455	·456	·456	75	87	81	6·1	3·9	5·0	0·810	·280	7th	7	0	0	1	7	9	0	10	2	29	0	7	3	5	2	4
·428	·420	·424	88	92	90	7·4	6·7	7·1	1·200	·360	25th	8	0	0	2	4	15	0	1	11	22	3	3	6	4	5	7
·460	·456	·458	85	85	85	8·1	5·2	6·7	0·310	·080	1st, 6th	6	0	0	1	1	9	1	4	27	10	1	1	5	5	8	1
·460	·449	·455	77	90	84	7·1	5·9	6·5	1·430	·860	4th	10	0	0	1	2	12	0	2	9	10	5	3	10	7	2	14
·455	·460	·458	86	88	87	7·3	7·3	7·3	2·009	1·142	4th	6	0	0	2	1	16	0	3	20	3	1	2	8	5	2	18
·468	·440	·454	83	87	85	7·9	7·5	7·7	1·425	·451	4th	12	0	0	2	1	18	0	3	7	1	8	7	4	0	4	28
·460	·461	·461	84	88	86	6·5	5·2	5·9	1·401	·620	7th	10	0	0	0	3	8	0	0	12	15	3	1	4	11	2	14
·469	·444	·457	83	87	85	7·6	4·9	6·3	1·695	·705	7th	10	0	0	1	4	12	0	10	8	1	7	6	9	3	3	15
·518	·492	·505	88	90	89	8·3	4·6	6·5	1·188	·410	18th	14	0	0	3	3	10	0	3	32	5	1	0	5	9	3	4

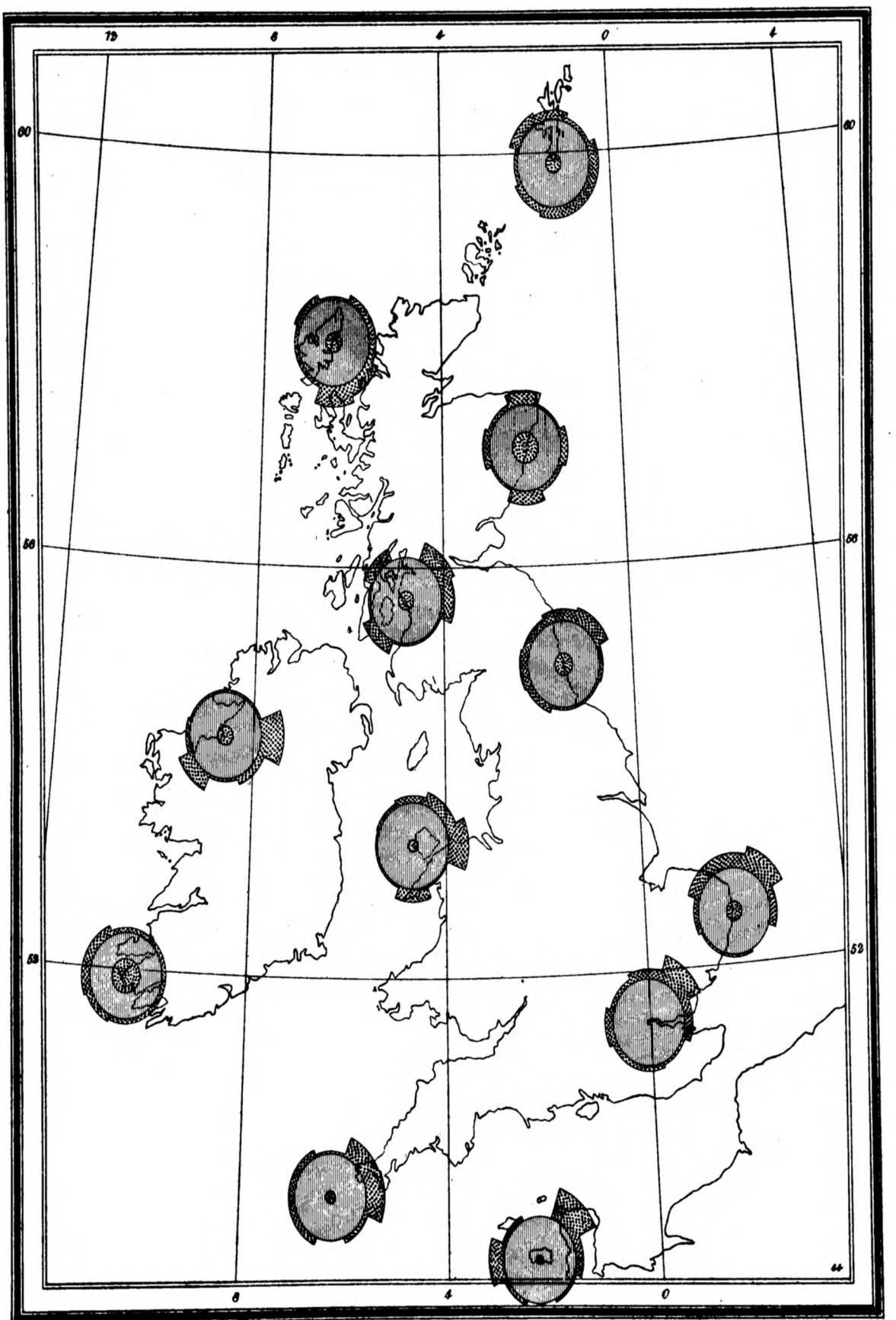
TABLE C., AUGUST.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS, during the Month of AUGUST 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

Names of Districts.	Names of Stations.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Air Temperature.								Tension of Vapour.	Relative Humidity.	Amount of Cloud (0 to 10).	Rainfall.			Weather. No. of Days of							Wind. No. of Observations of								
			At 8 a.m.	Means of			Absolute Extremes.																									
				Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.				Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thundersforms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND, N.	Sumburgh Head	30·002	56·3	51·7	61·4	56·6	45	1st	69	12th	·409	90	8·8	3·59	2·84	7th	13	0	0	0	0	22	0	4	2	4	4	4	3	2	5	3
	Wick	30·015	58·2	52·5	65·1	58·8	47	1st, 8th	76	10th	·418	86	8·0	0·28	0·17	8th	7	0	0	1	3	21	0	4	2	1	1	10	2	4	5	2
	Stornoway	29·974	58·6	52·7	65·3	59·0	45	1st, 2nd, 3rd.	73	12th, 13th	·442	90	7·3	0·70	0·27	4th	10	0	0	0	1	14	2	1	3	3	5	8	2	2	3	4
1. SCOTLAND, E.	Nairn	30·013	57·8	54·0	68·0	61·0	45	7th	77	29th	·387	81	5·5	0·43	0·09	5th, 7th	8	0	0	0	6	8	0	0	0	0	0	0	0	3	1	27
	Aberdeen	30·035	59·4	53·5	66·7	60·1	47	3rd	81	10th	·419	84	6·5	1·05	0·36	2nd	12	0	0	2	4	12	0	6	1	3	2	5	1	3	2	8
	Leith	30·036	60·5	53·6	68·3	61·0	46	1st	80	11th	·425	81	6·1	0·28	0·09	2nd	8	0	0	1	2	11	0	2	2	11	4	1	1	3	7	0
2. ENGLAND, N.E.	Shields	30·039	58·8	53·9	64·3	59·1	49	1st, 2nd, 3rd, 10th, 20th.	73	10th, 11th	·433	88	7·0	1·21	0·32	5th	16	0	0	4	2	14	0	5	7	2	1	1	3	4	3	5
	York	30·040	60·2	54·1	69·5	61·8	46	3rd	79	11th	·444	86	6·3	1·66	0·58	7th	10	0	0	0	9	15	0	9	9	2	1	3	0	2	5	0
	Spurn Head	30·019	59·7	56·5	65·4	61·0	52	1st	73	10th	·451	89	6·2	1·10	0·43	6th	10	0	0	2	0	11	0	4	14	3	0	2	1	4	3	0
3. ENGLAND, E.	Yarmouth	29·996	61·7	56·6	66·2	61·4	44	24th	71	5th	·480	88	4·6	1·73	1·48	7th	8	0	0	1	12	5	0	5	10	3	0	1	1	2	5	4
	Cambridge	30·009	60·5	54·2	71·6	62·9	45	24th	79	10th	·458	87	8·2	1·35	0·41	7th	8	0	0	3	0	22	0	13	8	0	0	1	3	2	4	0
4. MIDLAND COUNTIES.	Nottingham	30·043	61·0	54·4	71·0	62·7	46	1st, 3rd, 9th, 10th.	80	10th, 11th	·464	87	7·7	2·76	1·06	29th	9	0	1	5	5	20	0	8	11	2	0	1	5	1	3	0
	Oxford	30·015	59·2	55·4	68·8	62·1	49	3rd, 24th	76	11th	·439	88	8·7	0·55	0·30	6th	10	0	0	1	3	24	0	6	14	2	0	1	3	4	0	1
5. ENGLAND, S.	London	30·005	61·7	56·3	72·5	64·4	47	3rd	81	28th	·448	82	8·7	0·54	0·19	7th	6	0	0	1	3	24	1	4	12	4	1	2	2	4	2	0
	Dover	29·958	63·4	60·1	68·3	64·2	54	2nd, 8th, 9th.	73	28th	·481	82	5·3	0·75	0·38	7th	5	0	0	1	0	4	0	10	11	3	1	0	2	3	1	0
	Hurst Castle	29·994	61·1	57·9	69·8	63·9	50	3rd	75	27th	·488	91	6·8	0·94	0·37	2nd	7	0	0	2	3	11	2	2	12	9	0	1	0	3	3	1
6. SCOTLAND, W.	Ardrossan	30·025	59·6	54·9	67·5	61·2	45	1st	78	12th	·434	85	7·1	1·41	1·21	4th	6	0	0	1	2	14	0	0	8	6	1	1	5	1	5	4
7. ENGLAND, N.W.	*Hawes Junction	28·816	55·2	50·0	64·1	57·1	41	3rd	75	11th	·401	92	6·6	2·68	1·77	5th	8	0	0	3	6	15	0	0	8	12	0	0	4	5	1	1
	Barrow-in-Furness	30·030	60·5	56·0	69·0	62·5	53	2nd, 8th, 25th.	79	28th	·440	84	4·5	1·37	0·48	5th	8	0	0	0	9	7	0	4	16	2	1	1	3	2	2	0
	Liverpool	30·026	60·5	56·3	68·6	62·5	50	1st	75	12th, 28th, 31st.	·425	81	7·3	1·51	1·10	7th	6	0	0	0	6	16	0	2	3	12	4	3	1	3	1	2
	Holyhead	30·021	60·2	57·3	?65·7	61·5	52	1st	70	28th	·466	90	4·6	2·48	1·09	7th	6	0	0	0	7	8	1	3	5	11	1	5	1	1	2	2
8. ENGLAND, S.W.	Pembroke	30·002	60·1	57·4	66·3	61·9	54	1st, 19th, 31st.	74	11th	·452	87	5·9	0·64	0·20	1st	7	0	0	1	3	9	2	2	10	10	1	3	1	1	2	1
	Prawle Point	29·987	60·7	56·5	67·8	62·2	51	10th	74	13th, 30th	·482	91	7·5	0·66	0·37	25th	9	0	0	2	0	14	1	3	15	2	1	0	1	4	2	3
9. IRELAND, N.	Donaghadee	30·047	59·5	54·4	64·7	59·6	46	2nd	72	10th, 12th	·454	90	5·5	0·62	0·14	4th	7	0	0	0	7	10	0	7	5	6	1	3	3	4	2	0
	Mullaghmore	30·011	60·7	58·0	68·3	63·2	52	1st, 2nd, 7th.	76	13th, 15th	·453	86	6·3	1·41	0·56	4th	8	0	0	2	8	9	1	1	1	12	3	1	6	2	1	4
10. IRELAND, S.	Valencia	30·011	62·2	56·3	69·9	63·1	48	9th	76	14th, 15th	·487	88	6·3	4·89	1·49	29th	17	0	0	6	1	10	0	2	2	2	2	2	3	4	4	10
	Roche's Point	30·008	61·4	56·5	73·1	64·8	52	1st	80	14th, 28th	·461	85	6·3	1·59	0·36	5th	7	0	0	0	0	5	2	7	2	7	5	2	4	3	1	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·993	62·1	58·6	66·4	62·5	56	7th, 11th	72	31st	·509	91	9·0	0·33	0·07	5th	11	0	0	1	0	23	1	1	8	9	2	0	3	3	3	2
	Jersey	29·960	62·4	58·7	68·1	63·4	54	3rd	74	5th, 11th	·514	92	8·3	1·23	0·55	18th	15	0	0	5	1	22	3	0	15	4	1	0	2	6	2	1

* Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations at this station are not corrected for altitude.

Monthly Wind Chart for August, 1880.



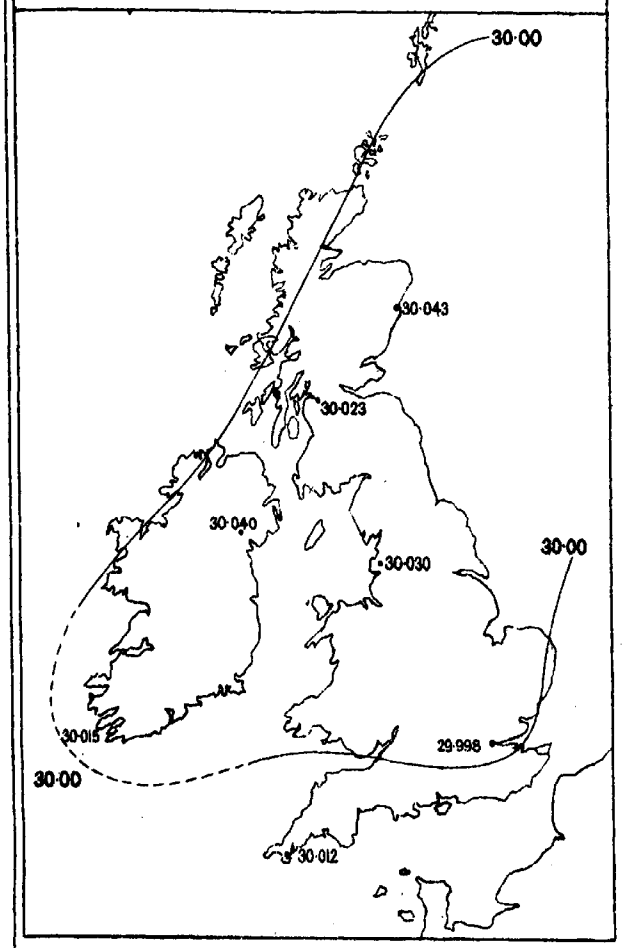
To face p. 90

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons 2031. 2. 91.

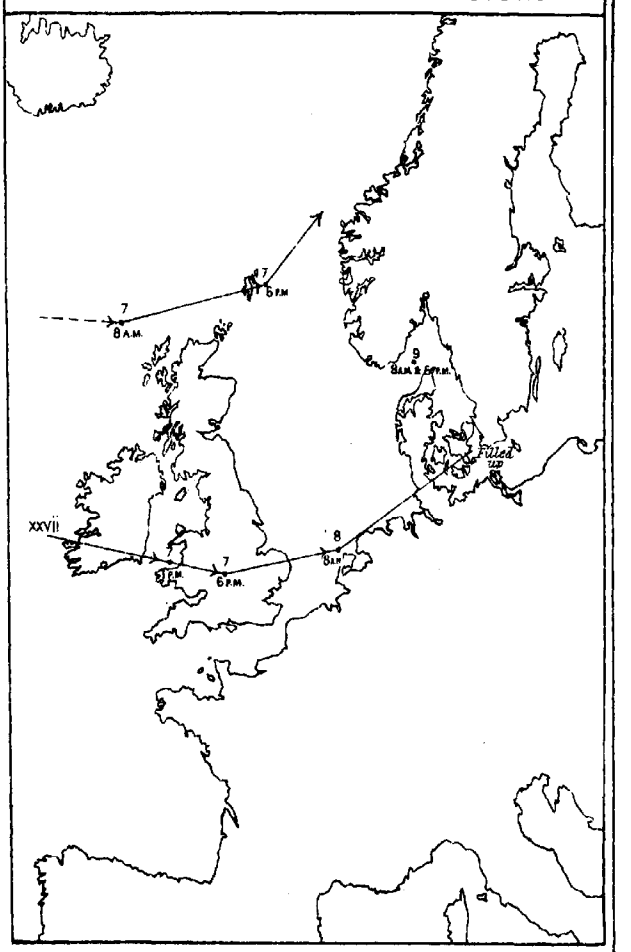
MONTHLY WEATHER CHART, AUGUST, 1880.

Monthly Summary.

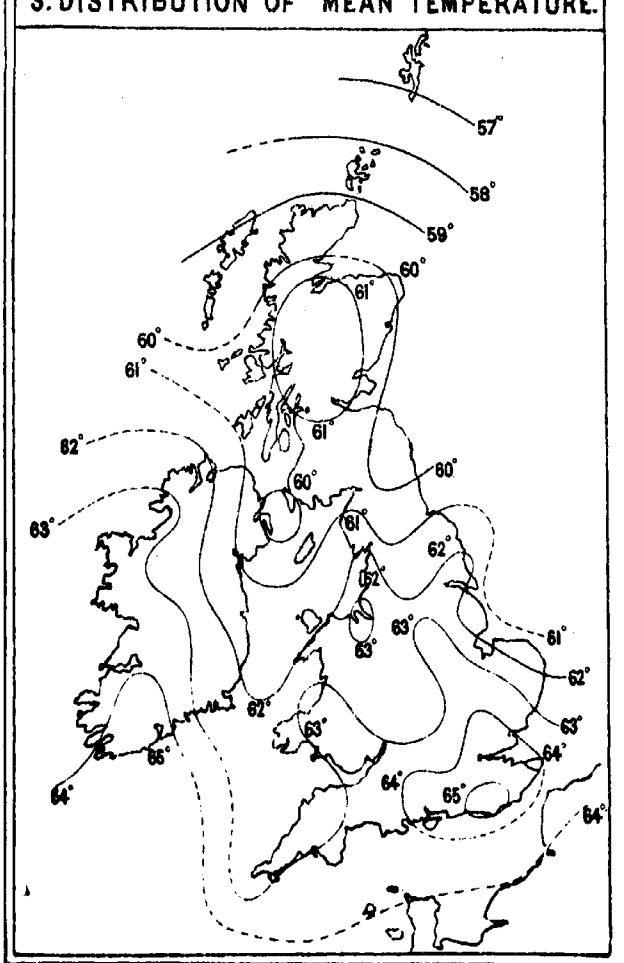
1. DISTRIBUTION OF MEAN PRESSURE.



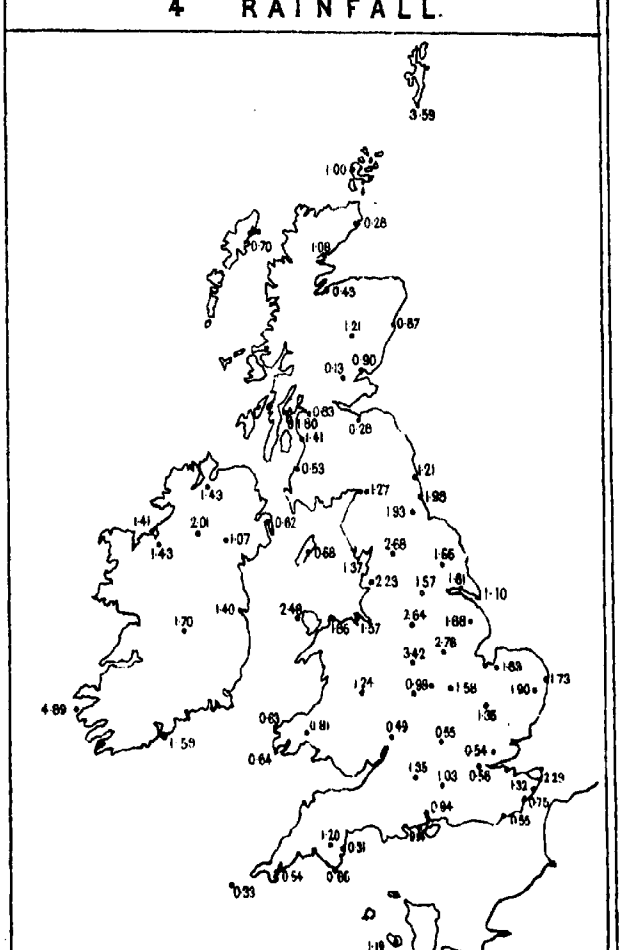
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.



To follow Wind Chart for August.

Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors' Commons. 2037. 2. 97.

REMARKS FOR SEPTEMBER 1880.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—For the first few days of the month the winds were very light, and generally Westerly in direction. On the 6th they attained some force in the north of Scotland during the passage of depression No. XXVIII. On the 8th and 9th an Easterly current set in, owing to the appearance of a slight depression over the Bay of Biscay. This gradually drew into South-east as disturbances approached the west coast of Ireland, and again veered to South-west as the depression passed on northwards. From the 10th to the 13th the direction was rather variable, but generally South-westerly. On the 14th a regular cyclonic circulation was set up by the arrival of depression No. XXX. off the Irish coast. The winds which accompanied this system were very high, especially those from North-west and North, the forces of 9 and 10, and even 11 (Jersey), being reported from several stations. As soon as this gale had blown over moderate Westerly breezes succeeded and lasted till the 21st, when a period of very light airs ensued, and lasted till the close of the month, accompanying the anticyclone described at p. 72.

The wind chart from the month offers a strange contrast to that for August, as East winds are almost entirely absent, except at Jersey and in the Shetlands.

Pressure.—Was somewhat above the average at all stations. Its distribution was in no way abnormal, the isobar for 29·80 ins. occupied nearly the usual position of that for 29·76 ins. in the extreme north-west, and a small patch of 30·0 ins. lay over the entrance of the Channel, where the average reading is 29·95 ins. The range was considerable in the south-west, 1·5 ins. at Valencia and 1·4 ins. at Falmouth, along the path of depression No. XXX., which caused the mercury to fall below 29 ins. at Valencia. The maximum readings all occurred at the end of the month.

Movements of the Depressions.—Only a few depressions approached our coasts during the month. No. XXVIII. passed far outside the Shetlands. No. XXIX. on the 11th was very short-lived, passing northwards across the east of England, and becoming filled up over the North Sea on the 12th. No. XXX. had a very erratic course, travelling nearly due eastwards till its centre reached Yarmouth, when the path turned suddenly southwards till the centre approached Paris, the path then turned again at an acute angle and took a north-east direction as far as the south point of Sweden, when yet another turn north-westwards took it up the Cattegat, where it disappeared.

Temperature.—The temperature was in general two or three degrees above its average figure. It ranged from 62°·0 in the Channel Islands to 54°·0 in the Shetlands. The maximum readings were far above those for August, 88°·0 being recorded at Cambridge and Nottingham and 87°·0 in London. Almost without exception, these readings were registered on the 4th. The minima were generally high, 53° being reported from Scilly, and 51° from Jersey and St. Ann's Head. However, at Braemar the thermometer on the 19th fell nearly to the freezing point (32°·7), and at Wick 35° was registered on the same day. Range was generally large, amounting to 46° at Cambridge and Nottingham. At Scilly, however, it was only 19°.

Vapour Tension was low. It exceeded 0·45 in. only at the English south coast stations, and was as low as 0·33 in. in the neighbourhood of Nairn. *Relative Humidity* was fairly high, ranging from 85 to 94 over England. It was highest in Cornwall. At Nairn it was as low as 80.

Rainfall.—This was decidedly heavy, exceeding 7 ins. on Dartmoor and 6 ins. at Buxton and Jersey. 32 falls exceeding an inch in 24 hours were reported on the 11th, 13th, or 14th, and one of 2·03 ins. at Leith on the last of these days. The least monthly fall, 1·22 ins., was recorded at Nairn. At Laudale, Donaghadee, Scilly, and Jersey the number of rainy days exceeded 20.

Sunshine was about the average for the month. It was highest, 45 per cent. of possible duration, at Kelstern in Lincolnshire. Then follows Geldeston with 42°, and Cambridge and Jersey with 41°. The lowest figure was 27, which appears for both Glasgow and Llandudno.

TABLE showing the PREVALENCE of BRIGHT SUNSHINE at STATIONS in the BRITISH ISLANDS during the MONTH of SEPTEMBER 1880.

STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.	STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.
Stornoway	117	30	Southampton	140	38
Aberdeen	150	41	Glasgow	99	27
Glenalmond	—	—	Silloth	127	34
Durham	143	39	Douglas	144	39
York	?	?	Stonyhurst	118	32
Kelstern	168	45	Llandudno	100	27
Hillington	131	35	Pembroke	133	35
Geldeston	156	42	Falmouth	114	31
Cambridge	151	41	Markree Castle	118	32
Leicester	132	36	Armagh	125	34
Churchstoke	114	31	Dublin	134	36
Cirencester	106	29	Parsonstown	117	32
Oxford	124	33	Valencia	113	31
London*	120	32	Jersey	151	41

* The value for London is the mean of observations taken at Hampstead and Kew Observatory.

TABLE A., SEPTEMBER.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of SEPTEMBER 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).							TEMPERATURE In the Shade (In Degrees Fahrenheit).							HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.					Range.	Mean for the Month.	Extremes.				Range.		Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
		Minimum.			Maximum.				Minimum.		Maximum.						
		Reading.	Date.		Reading.	Date.			Reading.	Date.		Reading.	Date.				
	ins.	ins.	D.	H.	ins.	D. H.	ins.	°	°	D. H.		°	D.	H.	°	in.	%	ins.
Valencia - -	29·953	28·895	14th,	5 a.m. 6 a.m.	30·462	28th, 10 p.m.	1·567	59·4	49·5	18th, 2 p.m.		72·2	3rd,	5 p.m.	22·7	·422	84	4·623
Armagh - -	·939*	29·387†	14th,	11 a.m.	·502	28th, 9 p.m. 10 p.m. 11 p.m.	1·115	56·2	43·3	19th, 5 a.m.		75·0	4th,	4 p.m.	31·7	·383	85	3·560
Glasgow - -	·804	·460	11th,	1 a.m.	·484	28th, 10 p.m.	1·024	55·3	40·1	20th, 5 a.m.		77·6	4th,	3 p.m.	37·5	·362	83	2·941
Aberdeen - -	29·888	·440	11th,	4 a.m.	·511	28th, 7 p.m.	1·071	55·6	38·4	19th, 5 a.m.		75·6	3rd,	1 p.m.	37·2	·357	80	3·595
Falmouth - -	30·005	·083	14th,	5 p.m.	·484	28th, 11 a.m.	1·401	59·1	50·7	19th, Midt.		71·0	1st,	1 p.m.	20·3	·429	86	3·320
Stonyhurst - -	29·942	·282	15th,	4 a.m.	·514	28th, Midt.	1·232	57·1	43·9	19th, 11 p.m.		78·6	4th,	1 p.m.	34·7	·384	82	3·927
Kew - -	29·985	29·147	15th,	4 a.m.	30·511	29th, 10 a.m.	1·364	59·5	44·0	20th, 4 a.m.		84·0	4th,	2 p.m.	40·0	·407	80	4·425

* Means for three days are approximate.

† Lowest reading recorded, trace lost for nine hours.

TABLE B., SEPTEMBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Means of			Absolute Extremes.			
						Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·830	55·9	53·3	54·6	50·7	59·8	55·3	45·3	19th, 24th	70·0	4th
	Dunrobin Castle ♁	29·868	57·6	53·9	55·8	48·4	62·0	55·2	39·6	19th	74·1	1st
1. SCOTLAND, E.	Braemar ♁	29·873	52·9	51·2	52·1	44·9	59·9	52·4	32·7	19th	73·8	4th
	Dundee ♁	29·898	55·6	53·3	54·5	48·8	64·0	56·4	39·3	19th	75·8	3rd, 4th
	Glenalmond	29·897	55·5	51·8	53·7	45·4	61·5	53·5	36·0	20th	76·5	5th
2. ENGLAND, N.E.	Seaham	29·919	59·1	55·5	57·3	50·6	64·0	57·3	40·3	23rd	78·7	3rd
	Durham*	29·916	59·9	53·6	56·8	47·9	66·0	57·0	39·3	9th	80·5	3rd
	York	29·948	57·5	56·5	57·0	50·8	66·6	58·7	42·4	20th	80·5	4th
	Hull	29·954	59·2	56·8	58·0	51·7	66·2	59·0	42·7	20th	81·8	3rd
	Kelstern ⫽	29·964	59·2	55·3	57·3	50·4	66·0	58·2	41·7	20th	81·3	4th
3. ENGLAND, E.	Hillington ⫽	29·961	61·3	55·2	58·3	50·1	68·1	59·1	39·2	8th	85·1	4th
	Geldeston	29·977	60·6	56·4	58·5	51·4	67·9	59·7	42·9	20th	82·8	4th
	Chigwell Row	30·019	61·1	57·8	59·5	52·3	70·2	61·3	43·2	20th	87·0	4th
4. MIDLAND COUNTIES.	Wakefield ⫽	29·954	58·8	56·5	57·7	50·1	66·2	58·2	43·1	18th, 20th	82·8	4th
	Buxton ⫽	29·986	56·5	53·3	54·9	48·6	63·1	55·9	40·0	8th	80·1	4th
	Cheadle ⫽	29·963	56·2	55·3	55·8	50·3	63·7	57·0	41·4	19th	80·9	4th
	Leicester	29·968	59·6	57·9	58·8	51·6	66·5	59·1	43·0	8th	84·4	4th
	Uppingham	29·968	58·1	55·7	56·9	51·3	66·1	58·7	42·9	20th	83·4	4th
	Oscott	29·967	58·5	56·0	57·3	50·6	66·3	58·5	42·5	20th	85·1	4th
	Churchstoke ⫽	29·984	57·4	55·0	56·2	49·7	64·3	57·0	38·4	8th	81·0	3rd
	Cheltenham ⫽	29·976	59·4	55·1	57·3	49·5	66·4	58·0	40·1	7th	83·5	4th
5. ENGLAND, S.	Marlborough ⫽	29·997	58·9	55·3	57·1	50·8	67·4	59·1	40·1	20th	84·5	4th
	Strathfield Turgiss ⫽	29·997	60·5	55·8	58·2	50·8	68·6	59·7	41·4	20th	85·0	4th
	Ramsgate ⫽	30·013	61·6	58·6	60·1	54·5	67·9	61·2	44·2	20th	79·2	4th
	Folkestone	—	—	—	—	—	—	—	—	—	—	—
	Southampton	30·014	60·1	57·5	58·8	52·9	67·9	60·4	43·0	30th	80·7	4th
	St. Leonards	30·003	61·9	59·0	60·5	55·2	66·4	60·8	43·4	20th	77·9	4th
6. SCOTLAND, W.	Laudale	29·877	56·1	54·5	55·3	50·4	62·2	56·3	39·0	20th	70·6	3rd
	Rothesay ♁	29·923	57·1	53·7	55·4	48·9	63·2	56·1	40·1	20th	76·6	4th
	Pinmore ♁	29·922	57·4	54·5	56·0	47·9	63·3	55·6	36·5	8th, 29th	75·9	4th
7. ENGLAND, N.W.	Scaleby ⫽	29·921	58·1	54·6	56·4	48·3	64·1	56·2	37·0	20th	80·7	4th
	Douglas (Isle of Man)	29·932	58·2	55·0	56·6	50·3	61·9	56·1	41·7	8th	73·7	4th
	Llandudno ⫽	29·954	59·4	57·8	58·6	54·3	63·4	58·9	47·0	19th	81·8	4th
8. ENGLAND, S.W.	St. David's	29·968	59·1	57·2	58·2	54·3	63·1	58·7	50·3	8th	77·0	4th
	Caermarthen ⫽	29·975	58·9	56·1	57·5	51·7	65·1	58·4	41·4	19th	83·0	4th
	Dartmoor ⫽	30·017	55·5	52·5	54·0	48·6	60·6	54·6	42·0	18th, 26th	73·0	3rd, 4th
	Babbacombe ⫽	30·001	60·3	56·5	58·4	53·3	65·9	59·6	43·7	20th	76·5	2nd
9. IRELAND, N.	Londonderry	29·929	57·8	54·4	56·1	49·0	63·8	56·4	40·0	8th	81·2	4th
	Brookeborough	29·914	55·4	53·6	54·5	48·2	63·8	56·0	39·9	28th	79·1	4th
	Markree Castle	29·919	57·6	53·7	55·7	47·7	63·6	55·7	38·0	9th	77·2	4th
10. IRELAND, S.	Dublin	29·958	58·1	57·3	57·7	53·4	63·7	58·6	45·3	19th	74·8	4th
	Parsonstown	29·959	58·5	55·1	56·8	51·3	64·9	58·1	42·8	9th	78·6	4th
CHANNEL	Jersey (St. Aubin's)	30·044	62·7	59·5	61·1	56·8	66·8	61·8	50·0	20th	79·0	3rd

NOTE.—The stations marked thus ⫽ are in connexion with the Royal Meteorological Society, those marked ♁ with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS during the Month of SEPTEMBER 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER, No. of Days of							WIND, No. of Observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·369	·351	·360	83	86	85	5·7	5·1	5·4	4·160	·860	30th	21	0	1	2	7	8	2	2	2	1	7	14	7	12	6	9
·406	·376	·391	85	90	87	—	—	—	2·480	·510	10th	12	0	0	0	—	—	0	4	8	4	4	5	16	8	11	0
·331	·335	·333	82	88	85	6·1	5·9	6·9	2·690	·830	10th	16	0	0	0	1	5	0	0	6	3	3	3	38	1	6	0
·377	·362	·370	85	88	86	8·5	7·7	8·1	3·100	·900	14th	10	0	0	2	0	18	3	0	7	6	7	1	10	23	6	0
·370	·351	·361	83	90	87	5·1	6·0	5·6	1·534	·430	15th	16	0	0	1	1	6	0	2	1	6	6	6	20	6	3	10
·398	·395	·397	79	89	84	5·6	4·3	5·0	3·594	·683	12th	14	0	0	1	5	6	0	3	2	3	2	6	17	11	5	11
·414	·393	·404	80	94	87	5·7	5·1	5·4	5·068	1·190	14th	14	0	0	1	6	11	0	3	5	1	5	10	17	7	7	5
·436	·441	·439	92	96	94	5·6	4·4	5·0	4·570	1·350	11th	16	0	1	0	7	8	0	5	0	3	2	12	11	21	4	2
·436	·417	·427	88	90	89	5·2	4·5	4·9	4·860	1·440	11th	15	0	0	3	12	8	0	0	6	3	2	8	2	17	7	15
·422	·401	·412	84	91	87	5·7	4·9	5·3	5·140	1·865	14th	11	0	0	6	7	8	0	0	7	2	4	4	16	16	9	2
·447	·412	·430	83	93	88	7·0	6·5	6·8	3·877	1·240	11th	15	0	1	5	2	13	0	3	7	2	9	2	15	7	13	2
·439	·422	·431	83	91	87	6·8	3·8	5·3	2·720	1·520	14th	13	0	0	3	6	9	0	2	3	7	3	5	10	13	9	8
·442	·418	·430	82	87	85	8·0	4·2	6·1	3·620	1·600	11th	13	0	0	2	2	8	0	4	7	4	5	4	12	5	6	13
·405	·409	·407	81	88	85	6·4	5·8	6·1	4·800	·980	14th	15	0	0	1	5	12	0	7	3	5	2	4	11	24	4	0
·391	·373	·382	86	91	88	7·7	6·3	7·0	6·155	1·180	12th	14	0	3	6	1	12	0	0	4	1	2	2	13	5	17	16
·401	·389	·395	89	89	89	6·2	5·5	5·9	3·410	·730	12th	15	0	0	4	6	11	0	8	3	4	3	2	13	9	10	8
·420	·411	·416	82	86	84	6·2	5·9	6·1	5·280	1·390	14th	18	0	1	3	5	11	0	0	3	2	7	5	19	6	8	10
·429	·420	·425	88	93	91	6·6	5·9	6·3	4·261	1·081	11th	13	0	1	4	4	12	0	3	2	2	2	7	9	11	6	18
·429	·411	·420	87	91	89	8·0	6·9	7·5	3·840	1·090	14th	14	0	2	3	1	16	0	6	7	2	4	9	20	3	5	4
·396	·389	·393	84	89	86	7·2	6·2	6·7	1·988	·460	15th	12	0	0	0	4	16	0	4	2	2	2	6	13	5	11	15
·428	·403	·416	85	92	88	6·9	4·9	5·9	4·510	·990	14th	14	0	0	2	3	6	0	6	2	0	3	6	5	17	1	20
·429	·412	·421	86	93	90	6·9	5·6	6·3	3·940	1·010	12th	16	0	0	0	4	11	0	1	3	1	0	3	1	6	9	36
·448	·416	·432	85	92	89	7·8	5·3	6·6	4·626	1·546	11th	14	0	0	0	4	10	0	1	5	0	2	6	22	15	3	6
·484	·464	·474	88	93	90	6·7	5·5	6·1	2·680	·780	14th	11	0	0	1	4	12	0	2	1	2	0	20	8	1	0	26
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·451	·438	·445	87	92	89	8·0	5·6	6·8	5·793	1·845	14th	15	0	0	1	3	12	0	3	8	3	4	3	16	8	8	7
·452	·432	·442	82	87	84	6·9	3·9	5·4	3·907	·821	18th	13	0	0	3	4	6	2	5	6	9	3	4	8	15	6	4
·386	·376	·381	85	87	86	7·7	6·5	7·1	5·030	1·350	10th	23	0	1	0	1	12	0	0	0	0	4	12	23	4	2	15
·404	·384	·394	87	92	89	—	—	—	3·404	·660	10th	18	0	0	2	—	—	0	1	4	3	4	2	16	8	9	13
·397	·387	·392	84	91	87	—	—	—	4·070	·590	17th	18	—	—	—	—	—	—	9	5	0	2	12	14	3	15	0
·447	·412	·430	92	96	94	6·4	5·8	6·1	4·060	·770	14th	17	0	0	0	6	13	1	5	0	5	2	2	14	9	1	22
·407	·402	·405	83	92	88	7·4	6·7	7·1	4·410	1·285	14th	20	0	1	1	1	14	4	4	1	5	2	4	10	14	4	16
·424	·414	·419	84	86	85	6·9	5·3	6·1	2·160	·400	22nd	16	0	0	2	5	12	2	8	3	2	3	1	11	27	5	0
·447	·442	·445	88	93	91	6·9	5·5	6·2	2·508	·830	13th	12	0	1	0	1	10	3	1	6	6	9	5	17	11	3	2
·441	·430	·436	88	94	91	7·9	6·7	7·3	4·330	1·250	14th	19	0	0	0	2	15	0	7	2	3	2	5	9	10	3	19
·412	·379	·396	93	95	94	8·2	7·3	7·8	7·020	1·420	14th	13	0	0	0	0	15	0	4	9	11	2	1	8	12	18	1
·448	·413	·431	85	90	88	7·6	6·1	6·9	3·520	·910	13th	15	0	1	1	1	12	2	2	8	5	2	5	14	12	9	3
·396	·386	·391	83	90	86	7·6	6·0	6·8	2·660	·540	21st	22	0	1	1	1	7	0	2	3	3	6	11	11	9	5	10
·393	·383	·388	90	93	92	8·1	7·1	7·6	3·362	·952	17th	13	0	0	1	1	16	3	1	3	3	7	7	14	2	4	19
·397	·368	·383	83	88	86	8·0	6·8	7·4	2·284	·327	12th	17	0	0	0	1	14	0	4	1	1	8	10	5	4	3	24
·411	·413	·412	84	87	86	6·2	5·6	5·9	2·061	·471	22nd	15	0	0	0	4	10	1	4	0	4	8	2	12	19	3	8
·416	·394	·405	84	90	87	7·6	5·9	6·8	2·086	·380	10th	18	0	0	0	1	11	3	4	1	2	5	14	13	2	2	17
·474	·453	·464	83	88	86	6·7	5·1	5·9	6·395	1·558	11th	17	0	0	1	5	8	3	2	9	8	5	4	7	14	6	5

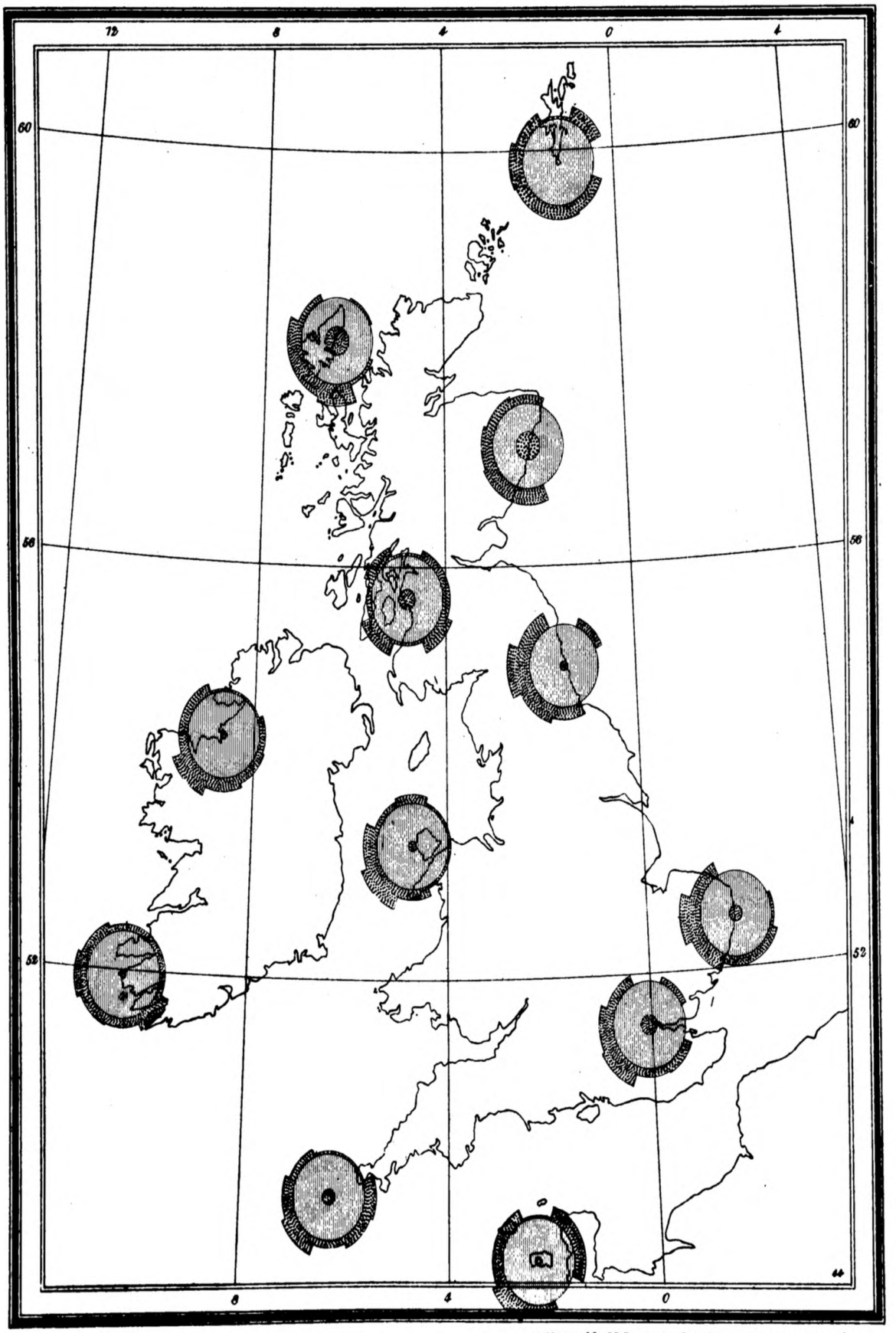
TABLE C., SEPTEMBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS during the Month of SEPTEMBER 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of								
			At 8 a.m.	Means of			Absolute Extremes.							Total Fall in the Month.	Maximum Fall in one Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
				Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.																						
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND, N.	Sumburgh Head	29·805	54·1	48·9	58·5	53·7	43	19th	68	4th	·362	86	7·3	4·96	1·17	10th	19	0	0	0	0	14	1	1	5	0	4	5	5	6	4	0
	Wick	29·846	55·1	48·1	61·5	54·8	35	19th	73	5th	·382	88	6·0	3·61	1·12	10th	18	0	0	0	6	9	1	1	3	2	0	6	7	3	5	3
	Stornoway	29·792	54·9	50·1	59·5	54·8	38	19th	69	4th	·384	90	6·7	3·38	0·50	27th	18	0	1	0	0	10	7	0	1	0	1	8	6	6	2	6
1. SCOTLAND, E.	Nairn	29·853	53·6	49·1	63·4	56·3	41	9th, 19th	75	4th	·329	80	5·9	1·22	0·21	23rd, 24th	13	0	0	0	8	11	1	0	1	1	0	1	2	6	2	17
	Aberdeen	29·877	55·4	49·0	64·3	56·7	37	19th	77	3rd, 5th	·363	83	4·9	3·27	0·86	10th	14	0	0	0	7	8	2	3	0	0	0	6	6	5	4	6
	Leith	29·897	55·3	49·2	65·5	57·4	41	20th	77	3rd	·380	87	6·6	2·38	0·72	14th	12	0	0	0	1	11	1	2	2	1	2	1	3	14	3	2
2. ENGLAND, N.E.	Shields	29·907	55·4	50·2	64·1	57·2	40	20th	77	4th	·393	90	7·0	3·63	0·94	14th	15	0	1	2	4	13	3	0	2	0	0	3	6	12	6	1
	York	29·941	55·6	50·6	66·7	58·7	43	19th	80	3rd, 4th	·416	94	5·8	4·57	1·35	11th	16	0	0	0	11	11	0	3	0	1	0	6	5	9	3	3
	Spurn Head	29·931	58·1	54·8	64·4	59·6	47	19th, 20th	75	5th	·440	90	5·9	4·36	2·03	11th	12	0	0	3	3	10	2	1	2	1	2	4	9	8	3	0
3. ENGLAND, E.	Yarmouth	29·964	58·9	53·8	65·2	59·5	43	20th	78	1st	·441	90	3·9	2·70	1·61	14th	14	0	0	1	13	4	1	0	0	1	3	3	6	10	5	2
	Cambridge	29·971	57·8	51·2	69·1	60·2	42	20th	88	4th	·433	90	7·0	3·29	1·37	11th	12	0	1	3	3	15	0	2	3	1	1	4	10	2	5	2
4. MIDLAND COUNTIES.	Nottingham	29·972	58·8	51·1	69·5	60·3	42	8th, 19th, 20th.	88	4th	·427	87	6·1	4·33	1·33	12th	15	0	1	2	8	11	0	1	1	1	3	5	8	3	3	5
	Oxford	29·981	56·7	52·4	66·1	59·3	43	29th	83	4th	·409	89	6·6	3·50	1·07	12th	50	0	0	0	10	17	0	3	1	0	1	3	6	4	2	10
5. ENGLAND, S.	London	29·989	59·4	52·8	69·9	61·4	41	20th	87	4th	·419	84	6·7	4·46	1·63	11th	13	0	1	1	8	15	0	0	2	0	4	3	8	6	4	3
	Dover	29·981	60·1	56·6	65·1	60·9	47	20th	77	4th	·443	85	3·9	2·75	0·65	14th	14	0	0	2	3	2	1	5	4	1	3	1	5	8	2	1
	Hurst Castle	29·985	59·0	55·5	65·5	60·5	46	30th	76	4th	·461	93	7·1	4·57	1·08	14th	15	0	1	0	2	14	2	5	2	4	0	2	3	9	4	1
6. SCOTLAND, W.	Ardrossan	29·897	55·7	50·9	61·8	56·4	42	20th	78	4th	·395	89	7·8	3·56	0·56	15th	18	0	0	2	1	17	1	1	3	3	5	1	7	2	5	3
7. ENGLAND, N.W.	Hawes Junction*	28·704	52·0	47·8	59·4	53·6	39	20th	78	4th	·364	94	7·5	5·41	0·78	12th	21	0	2	1	3	18	1	2	2	2	1	0	9	9	1	4
	Barrow-in-Furness	29·930	57·1	53·4	64·0	58·7	46	19th	80	4th	·398	85	7·3	3·18	0·51	12th	17	0	1	0	2	15	4	4	7	4	1	1	6	3	4	0
	Liverpool	29·940	57·2	53·9	63·9	58·9	47	19th	82	4th	·397	85	7·0	2·89	0·45	21st	16	0	0	0	4	13	0	1	0	3	6	8	3	6	3	0
	Holyhead	29·941	58·1	55·4	62·6	59·0	50	19th	78	4th	·426	87	5·9	2·16	0·49	14th	16	0	1	0	3	4	2	3	1	1	1	4	10	7	2	1
8. ENGLAND, S.W.	Pembroke	29·950	58·3	55·1	62·0	58·6	51	8th, 19th	73	4th	·429	89	8·4	2·67	0·51	13th	21	0	0	0	0	16	5	2	2	2	3	4	6	6	5	0
	Prawle Point	30·010	58·7	54·4	64·3	59·4	47	20th	74	4th	·466	95	7·5	1·91	0·35	8th	16	0	0	0	0	12	5	2	2	3	1	6	4	5	5	2
9. IRELAND, N.	Donaghadee	29·930	55·8	49·9	62·5	56·2	41	19th	70	3rd	·414	92	6·5	2·79	0·73	14th	22	0	0	0	4	12	2	1	3	1	2	4	10	7	2	0
	Mullaghmore	29·900	56·6	53·5	63·3	58·4	46	18th	77	4th	·394	85	7·5	3·19	0·61	21st	18	0	2	1	4	13	8	1	1	2	3	5	9	4	4	1
10. IRELAND, S.	Valencia	29·948	58·9	54·6	64·4	59·5	48	18th	70	9th	·426	87	8·0	4·39	1·12	13th	21	0	0	1	1	16	6	2	2	2	6	3	4	6	4	1
	Roche's Point	29·950	58·5	55·5	64·6	60·1	49	16th, 19th	74	4th	·423	86	7·8	?3·07	1·12	13th	18	0	0	0	0	16	1	2	0	2	3	4	5	9	5	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·989	60·3	56·2	63·3	59·8	53	19th, 20th, 27th, 29th, 30th.	72	4th	·471	90	9·0	2·54	0·57	13th	22	0	0	0	0	21	8	1	1	5	4	2	7	5	3	2
	Jersey	29·999	60·6	56·9	65·9	61·4	51	20th	81	3rd	·473	89	6·2	6·60	1·83	11th	22	0	0	1	5	11	6	1	5	5	0	2	6	5	5	1

* Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations at this station are not corrected for altitude.

MONTHLY WIND CHART FOR SEPTEMBER 1880.



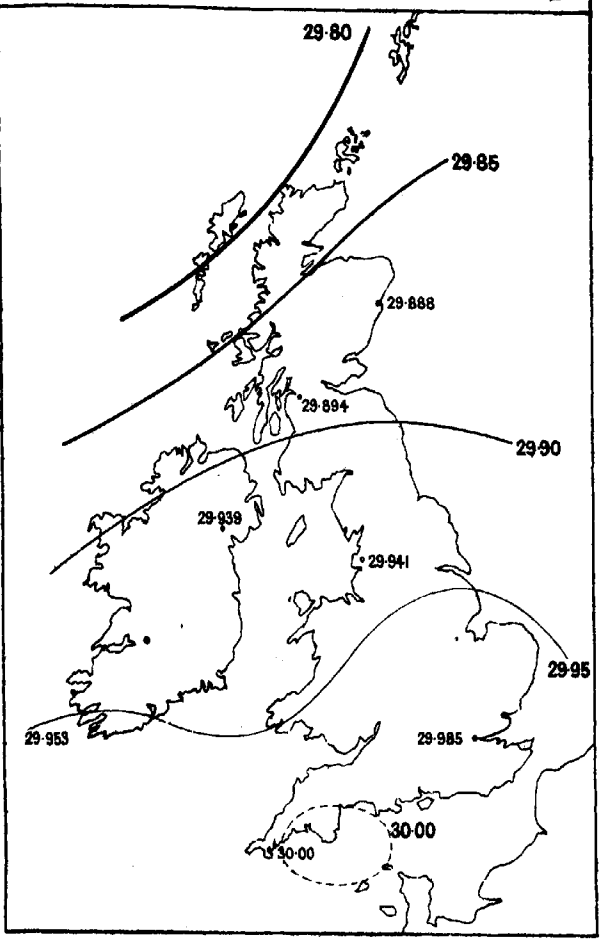
To face p. 96.

Judd & Co Lith 73 & 75, Farringdon Rd & Doctors Commons 20.9.1 2/81.

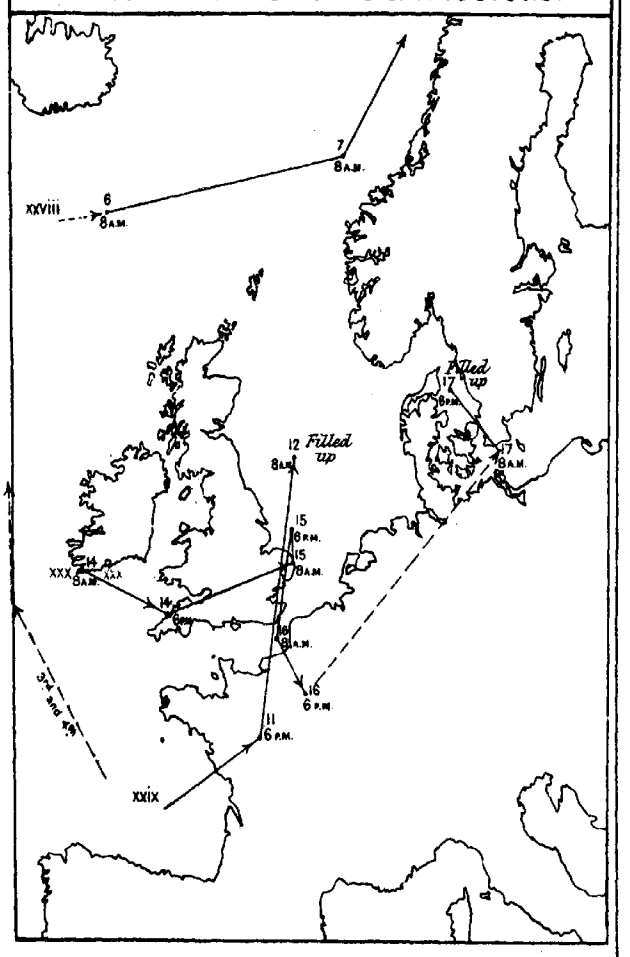
Monthly Weather Chart, September, 1880.

Monthly Summary.

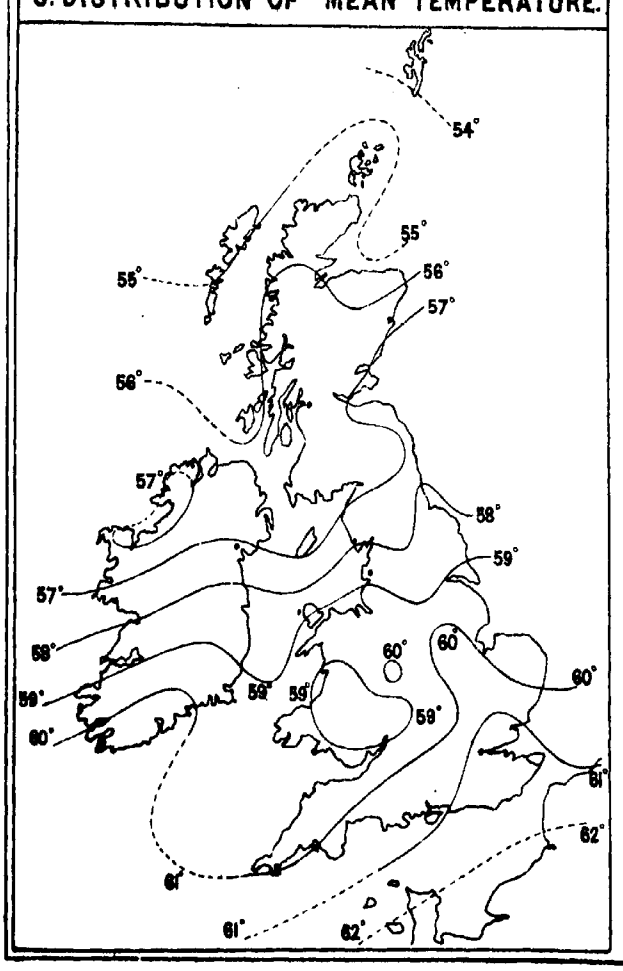
1. DISTRIBUTION OF MEAN PRESSURE.



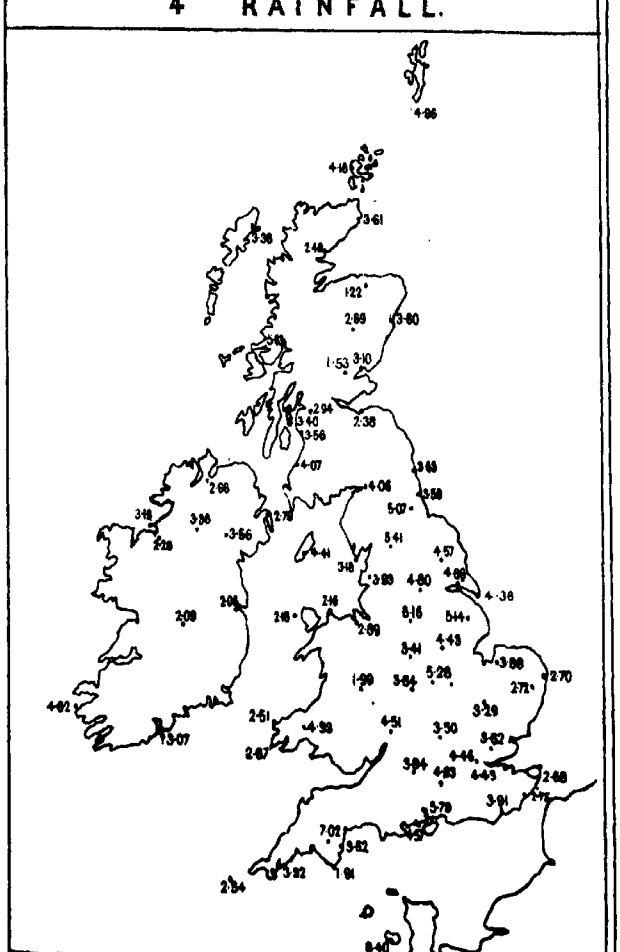
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.



To follow Wind Chart for September.

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PART IV.

SECTION I.

GENERAL SUMMARY.

THE weather of the quarter, taken as a whole, was not unusual in any way. In most parts of the kingdom the temperature and the rainfall scarcely differed from their normal amounts. In Scotland the period was dry and cold, the defect from the averages in the north of Scotland amounting to 3·7 ins. for rainfall, and to 3°·0 for the temperature. In the south of Scotland the variation was in the same direction, but of only half the amplitude. In the west of England and the whole of Ireland both elements exhibit nearly exactly normal records. In the rest of England the rainfall was above the average, as much as 3·7 ins. in the south. In the midlands the temperature was 2°·5 above the mean.

October 1st–3rd.—The first three days of October were fine in these Islands, the only disturbance in our neighbourhood being a slight depression, No. XXXI., which formed over Denmark on the 2nd, and had the effect of drawing the winds over Scotland into North-west, blowing a strong breeze with some rain.

October 4th–10th.—This interval was marked by the occurrence of very complex disturbances. On the morning of the 3rd the barometer over the west of France began to fall briskly, and more than an inch of rain was reported at Brest. At 8 a.m. on the 4th the centre of cyclonic system, No. XXXII., lay off Ushant, and during the day the wind increased to a stiff gale from East-north-east on the Cornish coast (see Gale Table No. 18), with very heavy rain, 2·44 ins. being reported from Babbacombe, and 2·6 ins. from Falmouth. By 8 a.m., 5th, the centre of the storm had advanced to near Ilfracombe, the North-east wind had increased to a gale at Holyhead, and the heavy rain had extended to the midland counties, more than an inch being recorded in several localities. By the following morning the depression had advanced to the North Sea, and a long trough of low pressure lay all along the south of England, at the western end of which a fresh disturbance, No. XXXIII., had made its appearance near Lorient, nearly in the same position as had been occupied by its predecessor two days before. Meanwhile the original system (No. XXXII.) passed off over Denmark to Russia, while the gales died down temporarily.

The track of No. XXXIII. was very peculiar, as it formed almost a double loop at the entrance of and in the Channel. The positions of the centre on successive days were as follows:—October 6th, near Lorient, 7th at Scilly, 8th near Ushant (first loop), 9th near St. Malo, 10th at St. Malo again, after passing up as far as Havre (second loop), and then the whole system passed down the Channel and out into the Atlantic. During all this time North-easterly gales were being felt at almost all our stations, but they were of no great intensity, the highest velocity recorded in Table 19 being 56 miles an hour at Scilly at 3 p.m. 7th, a velocity nearly equal, 53 miles, occurring also at Yarmouth on the night of the 9th–10th. Rainfall was very heavy in the south and south-east of England. In Scotland and Ireland, however, the weather was dry.

October 11th–19th.—During this period the conditions were anticyclonic and the weather fine. Anticyclone No. XVII. made its appearance in the north-west on the evening of the 9th, and by 8 a.m., 11th, the central isobar, for 30·4 ins., embraced the whole of Scotland and most of the North Sea. The system moved very slowly southwards, decreasing in intensity, so that on the morning of the 16th the highest reading was 30·16 ins. at Parsonstown, and the barometer all over England, France, and most of Germany ranged between 30 and 30·1 ins. At the same time a decided depression showed itself over Northern Norway, which

rapidly moved southwards, bringing Northerly winds to Scotland and the south-east of England, though the track of the system lay too far from our coasts for it to be shown on the map of depression movements.

October 20th–23rd.—This period was marked by the development of several small and short-lived disturbances which moved about chiefly over Northern France and Germany. No. XXXIV. first showed itself at 8 a.m., 20th, over the Channel Islands, being accompanied by heavy rain at Lorient. This precipitation was continued during the day at Lorient, Brest, and Prawle Point, while the disturbance advanced to Central France and filled up. At 6 p.m. on the same day No. XXXV. had formed itself near Heligoland, and moved due eastwards to the Baltic provinces of Germany. The heavy rain at the entrance of the Channel on the 20th was the precursor of a third system, No. XXXVI., which appeared near Biarritz on the evening of the 21st, advanced up to the mouth of the Channel, producing the Easterly gales, shown in Gale Table No. 20, all along the south coast of England, and finally moved to the centre of France, and filled up close to the spot where No. XXXIV. had disappeared on the 20th.

October 24th–30th.—To this last system succeeded a small anticyclone, No. XVIII., which had first shown itself off the west coast of Ireland on the 23rd, and had advanced till it lay over Brittany on the 25th. It passed on rapidly towards central France, and before the morning of the 26th very heavy rain had fallen in front of a serious disturbance approaching from the Atlantic. Meanwhile, another independent system, No. XXXVII., had developed itself over Holstein, and during the 26th passed on eastwards towards central Russia.

The serious disturbance mentioned above was No. XXXVIII. By the morning of the 27th its centre lay off the south of Ireland, and heavy Easterly and North-easterly gales, with torrents of rain, were reported from most parts of the United Kingdom (see Gale Table No. 21). On the French coast the rain was just as heavy, but the wind came from the West. The rain continued with unabated intensity during the 27th, as much as 2·87 ins. being reported for that day from Holyhead, while two inches was exceeded at seven other of our reporting stations.

The wind reached the high velocity of 71 miles an hour from North-East at Seaham at 11 a.m., 28th, and the gale at Holyhead lasted in all for three days. The cyclonic disturbance itself moved across Ireland and lay over the Bristol Channel at 8 a.m., 28th, with strong Westerly gales in the Channel, when it suddenly filled up, and at the same time a fresh system, No. XXXIX., developed itself near Spurn Head, and moved on independently over Northern Germany to Russia. As this passed away the North-easterly gales in the north of England and east of Scotland gradually died away, and weather became calmer. A fresh anticyclone, No. XIX., came on over the south of Ireland, and our weather was dry for the last two days of the month. At the same time depression No. XL. appeared off Christiansund and moved rapidly southwards over Norway, producing a fresh gale from North-West at Skudesness on the 31st, which was also felt on our coasts (see Gale Table No. 22).

November 1st–8th.—During the first week of November, the conditions over these Islands were distinctly anticyclonic, being influenced by the system just mentioned. From the 2nd to the 4th, the central isobar enclosed the greater part of these Islands and the North Sea. At the same time some depressions were passing over Scandinavia within the Arctic Circle, and on the 2nd, a small local cyclonic system appeared over the Gulf of Lyons, and produced 3·94 ins. of rain in two days at Cape Sicié. Our weather remained perfectly dry until the 7th, by which time the anticyclone had moved southwards and lay over France, while a general wave of lower pressure had passed over all our stations and the North Sea with Westerly winds and rain. On the 8th, there was a recovery of pressure with a general clearing of the sky, but a change of conditions was impending.

November 9th–13th.—On the evening of the 8th, the barometer in the extreme north began to give way, and by next morning the mercury had fallen more than 0·8 in. at Wick,

and depression No. XLI. lay with its centre westward of the Shetlands, while slight gales were reported from Stornoway and Leith. The disturbance took a south-eastern track, and appeared on the morning of the 10th over Denmark where it filled up. Its passage was marked by some fresh gales (Gale Table 23), but not by any serious rainfall.

This system was immediately succeeded by another, No. XLII., which also appeared off our north coast on the 11th, but travelled north-eastwards and arrived off the coast of Norway near Bodö on the 13th. No. XLIII. was secondary to this last and followed approximately the same track. It produced stiff South-west gales over these Islands (Gale Table 24), with general rainfall which exceeded an inch at Mullaghmore on the 12th. The depression finally passed off to the north of Sweden. During the whole of this period anticyclone No. XIX. continued to cover the centre and south of France and the whole of Spain.

November 14th–19th.—This period was marked by the passage over us of no less than four different depressions, of which the tracks of the first two crossed northern England, while the two last took a more southern course. All of them were accompanied by copious precipitation.

On the 14th, at 8 a.m., the anticyclone had been finally pushed eastwards over Switzerland, and all over England the barometer had fallen to the extent of 0·3 or 0·4 in., while fresh gales were blowing (Gale Table 24). The isobar of 29·1 ins. formed a sharp loop over the Firth of Clyde, indicating the formation of a fresh cyclonic system, evidence that was confirmed by the fact that at Hawes Junction as much as 2·47 ins., and at Mullaghmore more than an inch of rain, had been collected.

By 6 p.m. the central isobar of depression, No. XLIV., enclosed the Midland Counties and St. George's Channel, but the system speedily filled up, and by next morning its successor, No. XLV., showed itself off Valencia.

In the course of that night the barometer fell with very great rapidity, especially over North Wales and Lancashire, the change at Holyhead in the twenty-four hours being as much as 1·24 ins. During the day the readings at all the observatories, except Aberdeen and Falmouth, reached their lowest points for the month, the absolute minimum being 28·445 ins. at Stonyhurst at 1 p.m. It is rather remarkable, considering the depth of this depression, that the wind did not attain any great force in these Islands, as is proved by Gale Table No. 25, though heavy Westerly gales passed over France, nor was the rainfall commensurate with the apparent importance of the disturbance, the amount of an inch being exceeded only at the three Irish stations, of Valencia, Roche's Point, and Donaghadee. The system rapidly passed on to Denmark, where the readings at the centre were below 28·5 ins. at 8 a.m. 17th, and subsequently advanced to Southern Norway, where it filled up.

The next two systems, as before stated, took southern tracks, and consequently North-easterly winds came over us. Depression XLVI. showed itself at the entrance of the Channel on the morning of the 18th, travelled very rapidly along the north coast of France, and lay over Holland at 8 a.m., 19th. It subsequently passed on eastwards to Poland. It was accompanied by very heavy rain along the Channel coast, and by severe Westerly gales in France. In these Islands the wind was from the North-east, and the gale was worst at Yarmouth, where it lasted forty-two hours (Gale Table No. 26).

The last depression of the series, No. XLVII., was of minor importance. It appeared off Lorient at 6 p.m. on the 19th, and is shown on the Bulletin International as covering central France next morning. It then apparently filled up.

November 19th–22nd.—This interval was anticyclonic. System No. XX. approached western Scotland on the evening of the 19th. It passed over us very quickly, and by the morning of the 22nd had reached the Baltic, where the centre, with a reading of 30·45 ins., lay close to Stockholm.

During these days our weather was naturally rainless, but at the end of the time a new depression formed itself, producing locally heavy rain, especially at Cape Sicié on the 21st.

November 23rd–30th.—Immediately succeeding the anticyclone we find a depression lying outside our coast. It never actually reached our shores, and the lowest barometer reading recorded was 29·5 ins. at Valencia, but still fresh South-easterly and Southerly gales were felt as far eastwards as Falmouth and Holyhead (Gale Table 27).

The winds continued South-westerly with rainy weather until the 25th, when a fresh disturbance, No. XLVIII., appeared with its centre near the Faroes. This passed entirely north of us, but our winds continued to be very boisterous though the gradients seemed scarcely to justify them. Gale Tables Nos. 28, 29, and 30 show that at Valencia the wind blew a severe gale on three occasions, the velocity at 5 a.m., 26th, reaching 75 miles an hour, while both on the 24th and 28th the rate exceeded 60 miles; at no other station was the latter velocity reached, but the gales were very general. Depression No. XLIX. produced a more serious gale. It first showed itself at 8 a.m., 26th, off the west coast of Scotland. The velocity registered at Valencia three hours previously has already been mentioned, but at 8 a.m. Parsonstown reported force 11, and at Armagh, usually a sheltered station, a velocity of 56 miles was recorded at 9 a.m. (Gale Table 29). At 2 p.m., 26th, the barometer at Stornoway read 28·22 ins. The system passed off and apparently filled up without reaching Norway, and the recovery of the barometer was unusually rapid, the rise at Mullaghmore being 1·04 ins. in 24 hours. It is remarkable that no shift of the vane to North-west occurred in this storm, its track lying so completely to the north of us.

For the remainder of the month the weather was calmer. On the 28th anticyclone, No. XXI., appeared over France, and as the barometer on our north-west coast was low, gradients were rather steep, and at some of our stations the velocities recorded in Gale Tables 30 and 31 were registered. The weather up to the 28th was generally wet, but no excessive falls were noted.

December 1st–15th.—During the first half of December the anticyclone above mentioned continued to lie over France, and the tracks of the depressions, which were rather numerous lay entirely to the northward of these Islands.

The first (No. L.) appeared off the Shetlands on the evening of November 30th, and travelled rapidly eastwards till it reached central Russia on the 3rd. It produced rather heavy rain in the extreme north, with fresh Westerly gales, as shown in Gale Table No. 31. This disturbance was speedily followed by another, No. LI., which passed northwards outside the Hebrides and Shetlands on the 3rd and 4th without affecting our weather to any very appreciable extent.

For the next few days, up to the 9th, the anticyclone extended itself slightly northwards, so as to bring dry weather over us with a moderately low temperature. Our winds were Westerly and light, except that at the end of the period, without the development of any definite depression, the wind in the Orkneys and at Alnwick Castle reached gale-force for a considerable number of hours, as shown in Gale Table 32. In fact the velocity twice attained 60 miles an hour at Alnwick.

On the morning of the 10th a depression, No. LII., made its appearance off the coast of Norway. It had come down from the northward during the night, for Gale Table No. 33 shows that the gale in the Orkneys had begun before midnight on the 9th. The wind increased up to 2 p.m., at which hour the velocity reached the high figure of 72 miles an hour. No heavy rain accompanied this disturbance, but hail showers, with lightning, were reported, as is usual with North-westerly winds. This system had hardly passed away when No. LIII. appeared on the 11th. It took a somewhat different course, starting from the Shetlands, and then travelling first north-eastwards as far as Christiansund, and subsequently south-eastwards, it ultimately passed out into Russia. Its winds (Gale Table 34) were not quite so strong as those of its predecessor, though the velocity of 72 miles an hour was again attained at Sandwick on the morning of the 12th.

The list of depressions of this series was not yet complete, for (on the 13th) No. LIV. (Gale Table 35) followed speedily on that just described, but took a track at right angles to that of No. LIII. in its early portion. It travelled due South over the south-western corner of Norway, and filled up over Denmark.

December 15th–18th.—This period was marked by very peculiar modifications of pressure. On the morning of the 15th, depression No. LV. showed itself over the north of Ireland, and by 6 p.m. that evening a trough of low pressure lay all across the North Sea, the isobar of 29·4 ins. enclosing a long strip from the Hebrides to the Elbe. By next morning two distinct areas appeared, one with readings of 29·4 ins. over the North Sea, and the other with readings a tenth of an inch higher over Pembrokeshire. Of these the former entirely vanished by the 17th, while the latter moved due South, and lay over Brittany at 8 a.m. of that day, having produced heavy rain at Scilly and Prawle Point. The system remained in the same position for some twelve hours, and then suddenly moved eastwards along the Channel and filled up.

December 19th–31st.—The remainder of the month was, on the whole, wet, several depressions passing over us, but without any very serious gales. The first of these, No. LVI., was the worst; it began on the 18th, where the barometer at Stornoway had fallen 0·82 in. since the preceding morning, and the wind had reached the force of 8, but without rain. By 9 a.m. the velocity at Sandwick had reached 40 miles an hour, as we see from Gale Table 36. At the same time gales had commenced sporadically, as at Holyhead and Scilly. During the day the disturbance advanced slowly, the wind at Sandwick rose to a maximum of 50 miles at noon, and rain fell generally. At 8 a.m. next morning, 19th, the centre of the depression, with a reading of 28·58 ins., was at Nairn, the gales still continued, and at noon the high velocity of 70 miles from West by South was recorded at Alnwick. The isobars over the south of England showed irregularities, indicating an imperfectly formed secondary depression which caused more than an inch of rain at several southern stations. The depression finally moved on to Norway, filling up on its way. Temperature was low in its rear, and some snow showers were reported. The next system, No. LVII., was short-lived, and never actually crossed any part of our area. Its track lay outside the coast of Ireland, and its only effect on our weather was to produce fresh Southerly breezes, and heavy rain at all the western stations.

The next system, No. LVIII., travelled very rapidly over Ireland on the night of the 23rd, and at 8 a.m. next day its central isobar of 28·9 ins. lay in an oval form off the east coast of Scotland. It travelled due eastwards and passed along the Skagerrack to Sweden. The winds, as shown in Gale Table 37, were not very severe in these Islands, but on the west coasts of France they were reported as very heavy, and a good deal of rain fell.

The disturbances with which the year closed were very complicated. They were not accompanied by gales or anything more than heavy rain, but their history is interesting. They commenced at 6 p.m., 26th, with the appearance of depression, No. LIX., to the southward of Valencia, with readings of 29·3 ins., which by 8 a.m. next morning had transferred itself to South Wales, but without growing deeper. Then this disappeared, and at 6 p.m., 27th, another area of similar depth showed itself over south-western Ireland. Twenty-four hours later, at 6 p.m., 28th, we find two areas with readings of 29·5 ins., one covering the west of England and south-east of Ireland, and the other lying off the coast of Yorkshire. Of these, the eastern became filled up, and the western, No. LX., grew deeper, the major axis of the oval lying north and south over Scilly, while stiff Southerly gales were reported from the west coast of France. The system now moved north-eastwards, growing still deeper, till at 6 p.m., 29th, its centre lay near Liverpool, with a reading of 28·91 ins., and North-westerly gales had set in with heavy showers. The year closed with the appearance over Ireland of a new anticyclone.

SECTION II.

TABLE OF CYCLONIC SYSTEMS.—OCTOBER, 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XXXI. October 2 and 3.	No. XXXII. October 4-7.	No. XXXIII. October 6-10.
Form	Oval	Oval	Circular
Size	Small	Large	Small
Depth	Very shallow	Deep	Moderate
Where first Observed	Over the Cattegat	South-west of Scilly	At entrance of Channel, secondary to No. XXXII.
Direction of Motion	Easterly	East-north-east	Course described two loops. (See Remarks.)
Rate of Motion	Moderate	Moderate	Slow
Regions passed over by Steepest Gradients.	No gradients of consequence	North of England	South of England
Termination	Passed on to Finland	Passed over Gothland to central Russia.	Filled up off the south coast of Ireland.
Time under Observation	One day	Four days	Five days
Accompanying Winds	Westerly, veering to North-west	Heavy East and North-east gales in north of England; strong West winds in south.	At first, fresh Easterly winds in England; on the 8th, heavy South-westerly gales on the west coast of France; finally Easterly gales in England.
„ Weather	Overcast	Very unsettled	Very wet in south of England
„ Rainfall	Rather heavy in Denmark and South Norway.	Very heavy at Scilly and Jersey on 4th; in central England on 6th.	Nearly 2 ins. at Brest, on 8th, and about as much at Jersey and in London on 9th.
REMARKS		This depression developed itself into a trough, and as it passed away eastwards another system, No. XXXIII., formed itself in the trough, at the entrance of the Channel, and subsequently went on independently.	The track of this system was most extraordinary, it described two loops. At first it went from Brest to Scilly, then turned and passed over Lorient, up as far as Havre, and then turned again, and went westwards down Channel, filling up on the way.

SECTION II.

TABLE OF CYCLONIC SYSTEMS.—OCTOBER, 1880.

No. XXXIV. October 20-21.	No. XXXV. October 20-21.	No. XXXVI. October 21-23.	No. XXXVII. October 26.
Oval	Oval	Circular	Circular.
Very small	Moderate	Very small	Small.
Very shallow	Shallow	Shallow	Shallow.
Near Cherbourg	Near Heligoland	Near Biarritz	Over Denmark.
Easterly	Easterly	First north-westerly, then easterly	Easterly.
Rapid	Rapid	Rapid	Rapid.
No gradients of consequence	North of Germany	Entrance of Channel	Over Holstein.
Passed on to Poland, where it filled up.	Passed on to Russia	Passed on to central France, and filled up.	Passed on to central Russia,
Two days	One day	Three days	One day.
Strong North-east winds on Channel coast.	Strong South-west and West winds in south of Baltic.	Easterly gales on south coast of of England.	Winds not very strong.
Unsettled	Unsettled	Very wet	Wet and showery.
Heavy on Channel coast	Heavy on north coast of Germany	Heavy in Brittany and in Devonshire.	Heavy on North German coast.
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TABLE OF CYCLONIC SYSTEMS.—OCTOBER, 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XXXVIII. October 26-28.	No. XXXIX. October 28-29.	No. XL. October 30-31.
Form	Oval	Oval	Oval
Size	Large	Moderate	Moderate
Depth	Deep	Deep	Moderate
Where first Observed	Off south of Ireland	Near Spurn Head; secondary to No. XXXVIII.	Near Christiansund
Direction of Motion	Eastwards	Eastwards	South-eastwards
Rate of Motion	Rapid	Moderate at first, afterwards very rapid.	Rapid
Regions passed over by steepest Gradients.	Central Ireland and Wales	North of England and North Sea	South of Norway
Termination	Filled up suddenly near Bristol	Passed on to Russia	Passed on to Russia
Time under Observation	Three days	Two days	Two days
Accompanying Winds	Very heavy Easterly gales in Irish Sea. South-westerly in France.	Heavy North-easterly gales in Scotland and north of England.	Stiff North-west gales in south of Norway, affecting Scotch coast.
,, Weather	Very stormy	Very broken	
,, Rainfall	Unusually heavy on 27th. Holyhead had 2·87 ins., and seven other stations over 2 ins.	Heavy along east coast of England	Not very heavy; some snow and hail showers.
REMARKS	This system gave rise to a secondary No. XXXIX., which moved on independently.		

TABLE OF CYCLONIC SYSTEMS.—NOVEMBER 1880.

No. XLI. November 9-10.	No. XLII. November 11-13.	No. XLIII. November 13-14.	No. XLIV. November 14.
Circular	Uncertain	Circular	Oval.
Small	Probably small	Small	Small.
Shallow	Uncertain	Shallow	Shallow.
Over Shetlands	Outside Shetlands	Over Moray Firth	Over north of Ireland.
South-eastwards	East-north-east	East-north-east	Easterly.
Rapid	Rapid	Rapid	Rapid.
East of Scotland and south of Norway.	West of Norway	North of England and Denmark	Central Ireland and Southern England.
Filled up over Denmark	Passed northwards to Lapland	Passed out to Lapland	Filled up over England.
Two days	Three days	Two days	One day.
Westerly and North-westerly gales in Scotland; South-westerly at Skudesnaes.	Westerly breezes; no gales	Fresh Westerly gales over these Islands.	South-westerly gales over the south of England.
Showery	Cloudy	Wet in Ireland and England	Very wet locally.
Not heavy anywhere	No heavy rain	Rather heavy in the north	Extremely heavy at Hawes Junction, and also at Mullaghmore.
	This was followed by a secondary No. XLIII. nearly on its own path.	—	—

TABLE OF CYCLONIC SYSTEMS.—NOVEMBER 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XLV. November 15-18.	No. XLVI. November 18-19.	No. XLVII. November 19.
Form	Oval	Oval	Circular
Size	Large	Small	Small
Depth	Deep	Moderate	Shallow
Where first observed	Off west coast of Ireland	At entrance of Channel	Off Lorient
Direction of Motion	East-north-east	Easterly	No motion
Rate of Motion	Rapid	Rapid	No motion
Regions passed over by steepest Gradients.	South of England and north of Scotland.	The Channel coast	North coast of France
Termination	Passed on to Sweden	Passed on to Poland	Filled up
Time under Observation	Four days	Two days	Half a day
Accompanying Winds	West gales in south of England, East gales in Scotland.	East gales on our south coast, turning to North at Straits of Dover. West gales in France.	Fresh winds from East at Brest, West at Rochefort.
„ Weather	Showery	Very stormy	Cloudy
„ Rainfall	Heavy at several stations	Very heavy in Channel	Heavy at Rochefort and Biarritz
REMARKS	—	—	—

TABLE OF CYCLONIC SYSTEMS.—NOVEMBER-DECEMBER 1880.

No. XLVIII. November 25-26.	No. XLIX. November 26-27.	No. L. December 1-2.
Uncertain	Uncertain	Circular.
Probably large	Probably large	Moderate.
Deep	Deep	Shallow.
Off the Shetlands	Off west coast of Scotland	Off the Shetlands.
North-east	North-east	Easterly.
Rapid	Rapid	Rapid.
North of Scotland	North of Ireland and Scotland	North of Scotland and Denmark.
Passed out to sea off Norwegian coast	Passed out to sea off Norwegian coast	Passed on to Central Russia.
Two days	Two days	Two days.
Strong West and South-west winds	Strong South-west gales in north of Ireland	Fresh North-west gales at our stations; heavier in Denmark and Sweden.
Showery	Showery	
General, but not heavy	No heavy rain	Heavy in Caithness.
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TABLE OF CYCLONIC SYSTEMS, DECEMBER 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. LI. December 3-4.	No. LII. December 10.
Form	Uncertain	Circular
Size	Uncertain	Moderate
Depth	Probably shallow	Shallow
Where first Observed	Off the Hebrides	Off Bergen
Direction of Motion	North-easterly	South-east
Rate of Motion	Rapid	Moderate
Regions passed over by Steepest Gradients	West of Scotland	North-east Scotland
Termination	Disappeared at sea	Passed on to near Dorpat and filled up
Time under Observation	One day	One day
Accompanying Winds	Slight South-west breezes	Strong North-west gales in north Scotland
„ Weather	Fine	Some showers with lightning
„ Rainfall	Very little rain	Not heavy
REMARKS	This system did not come near enough to the coast to be clearly mapped out.	

TABLE OF CYCLONIC SYSTEMS.—DECEMBER 1880.

No. LIII. December 11-12.	No. LIV. December 13-14.	No. LV. December 16-18.
Circular	Circular	Circular.
Small	Small	Small.
Deep	Moderate	Moderate.
Over Shetlands	Off Bergen	Over the north-west of Ireland.
North-east and then south-east	South-east	Southerly, then, after an interval, easterly.
First moderate then very slow	Moderate	Moderate, then very slow, afterwards moderate again.
North Scotland	West of Norway and Holstein	South of England.
Passed to Baltic provinces of Russia, and then filled up.	Filled up over Southern Baltic	Filled up over North Sea.
Two days	Two days	Three days.
North-west gales in extreme north	North-west gales in Denmark and at mouth of Elbe.	No strong winds.
Showery	Generally dry	Generally fine.
Not heavy	Some snow in Denmark	Heavy, but only at Scilly and Prawle Point.
This system remained for three days over the coast of Lithuania, near Revel.		This system appeared first over the north-west of Ireland, then travelled to Pembrokeshire and moved on southward. It lay for a whole day over Brittany, and moved eastwards and filled up.

TABLE OF CYCLONIC SYSTEMS.—DECEMBER 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. LVI. December 18-20.	No. LVII. December 22.
Form	Oval	Probably oval
Size	Large	Probably small
Depth	Deep	Probably moderate
Where first Observed	Off Hebrides	Off west of Ireland
Direction of Motion	Easterly, then north-easterly	North-easterly
Rate of Motion	At first slow, then rapid	Moderate, then slow
Regions passed over by Steepest Gradients	Scotland	West of Scotland
Termination	Filled up over Northern Norway	Filled up over Hebrides
Time under Observation	Three days	One day
Accompanying Winds	Strong cyclonic gales	Easterly gales at Wick and Stornoway
„ Weather	Very squally	Very wet
„ Rainfall	Locally heavy; some snow showers	Heavy all along west coast
REMARKS	There was very heavy rain in the south of England on 19th owing to an imperfectly developed system secondary to No. LVI.	—

TABLE OF CYCLONIC SYSTEMS.—DECEMBER 1880.

No. LVIII. December 24-25.	No. LIX. December 27.	No. LX. December 29-31.
Oval	Circular	At first irregular, then circular.
Large	Small	Large.
Deep	Shallow	Deep.
Off west of Ireland	Off south of Ireland	Off Bristol Channel.
Easterly	Easterly	North-easterly.
At first rapid, then slow	Moderate	Rapid.
Scotland and Brittany	No important gradients	South-east and north of England.
Passed off to Sweden	Filled up near Bristol	Passed off to Northern Norway.
Two days	One day	Three days.
Heavy Westerly gales in Brittany	Light breezes	Fresh breezes; some North-west gales.
Showery	Overcast	Showery.
Heavy at several stations	Heavy in south-west	Heavy at some stations
—	—	—

TABLES OF GALES.

No. 18. (Cyclonic System, No. XXXII.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Oct. 4–6, 1880.													
Seaham	Noon (5th).	N.E. by E.	—	—	—	—	1 a.m. (6th).	N.E.	13	2 p.m. (5th).	N.E.	37	—
										3 p.m. (5th).	N.E. by E.		
										5 p.m. (5th).	N.E.		
Holyhead	1 a.m. (5th).	E.N.E.	2 a.m. (5th).	E.N.E.	47	21	1 p.m. (6th).	N.E.	36	7 & 11 a.m. (5th).	N.E. by E.	54	—
			Midt. (5th).	N.N.E.	43	7							
Scilly	4 a.m. (4th).	E.S.E.	11 a.m. (4th).	E. by N.	41	1	2 p.m. (4th).	N.E. by E.	10	11 a.m. (4th).	E. by N.	41	—
Falmouth	3 a.m. (4th).	E. by N.	—	—	—	—	2 p.m. (4th).	E.N.E.	11	9 a.m. (4th).	E.S.E.	38	—
	3 p.m. (4th).	N.E. by E.	6 p.m. (4th).	N.E. by E.	42	3	10 p.m. (4th).	N.E. by E.	7	7 p.m. (4th).	E. by N.	45	—
Yarmouth	11 p.m. (4th).	E.S.E.	1 a.m. (5th).	E. by S.	46	8	9 a.m. (5th).	S.E. by E.	10	5 a.m. (5th).	E. by S.	49	—

No. 19. (Cyclonic System, No. XXXIII.)

Oct. 6–10, 1880.													
Seaham	7 p.m. (9th).	N.E. by E.	—	—	—	—	Midt. (9th).	N.E. by N.	5	11 p.m. (9th).	N.E. by N.	35	—
Holyhead	10 p.m. (6th).	N.E.bE.	3 a.m. (7th).	N.E. by E.	42	10	9 a.m. (8th).	N.E. by E.	35	4&6a.m. (7th).	N.E. by E.	44	—
			2 p.m. (7th).	E. by N.	40	2							
			6 p.m. (7th).	N.E. by E.	41	3							
	7 a.m. (9th).	N.E.	11 a.m. (9th).	N.E. by N.	42	2	3 p.m. (10th).	N.E. by E.	32	11 a.m. (9th).	N.E. by N.	43	—
			2 p.m. (9th).	N.E.	41	1							
			7 p.m. (9th).	N.E.	40	2							
			8 a.m. (10th).	N.E.	42	1							
			10 a.m. (10th).	N.E. by E.	41	1							
			Noon (10th).	N.E. by E.	41	1							
Valencia	2 p.m. (6th).	N.E.bN.	1 a.m. (7th).	N.E. by N.	42	18	2 a.m. (8th).	N.N.E.	36	7 a.m. (7th).	N.N.E.	46	—
			9 p.m. (7th).	N.N.E.	40	1				2 p.m. (7th).	N.E. by N.		
Scilly	6 p.m. (6th).	N.E.	Midt. (6th).	E. by S.	47	19	3 a.m. (8th).	E.	33	3 p.m. (7th).	E. by S.	56	—
			9 p.m. (7th).	E. by S.	41	1							

No. 19. (Cyclonic System, No. XXXIII.)—*continued.*

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Oct. 6–10, 1880.													
Falmouth	9 p.m. (6th).	E.N.E.	8 a.m. (7th).	S.E. by E.	42	11	4 a.m. (8th).	S.E. by E.	31	11 a.m. (7th).	S.E. by E.	46	Velocity was also above 30 miles at a few hours on the 10th.
Kew	7 p.m. (9th).	N.E. by N.	—	—	—	—	2 a.m. (10th).	N.E. by N.	7	9 p.m. (9th).	N.E. by N.	34	—
Yarmouth	11 a.m. (7th).	N.E. by N.	—	—	—	—	Midt. (7th).	E.	13	4 p.m. (7th).	E.	38	—
	1 a.m. (8th).	N.E. by E.	—	—	—	—	4 a.m. (8th).	N.E. by E.	3	1 a.m. (8th).	N.E. by E.	33	—
	—	—	Noon (9th).	E.N.E.	48	23	9 p.m. (10th).	E.N.E.	33	10 p.m. (9th).	E. by N.	53	—
			Noon (10th).	E.N.E.	41	1				2, 3, & 4 a.m. (10th).	E.		

No. 20. (Cyclonic System, No. XXXVI.)

Oct. 21–24, 1880.													
Holyhead	1 p.m. (22nd).	E. by N.	—	—	—	—	Noon (23rd).	E.N.E.	23	9 p.m. (22nd).	E.N.E.	35	—
Valencia	1 a.m. (22nd).	N.E.	—	—	—	—	5 a.m. (22nd).	N.E.	4	4 a.m. (22nd).	N.E.	36	—
	9 a.m. (22nd).	N.E. by E.	11 a.m. (22nd).	N.E. by E.	41	1	4 p.m. (22nd).	N.E.	7	11 a.m. (22nd).	N.E. by E.	41	—
	6 p.m. (22nd).	N.E.	—	—	—	—	10 a.m. (23rd).	N.E.	16	10 p.m. (22nd).	N.E.	39	—
	11 a.m. (23rd).	N.E.	—	—	—	—	3 p.m. (23rd).	N.E.	4	Noon (23rd).	N.E.	33	—
Scilly	11 p.m. (21st).	E.N.E.	2 a.m. (22nd).	E.N.E.	42	1	4 a.m. (23rd.)	E.N.E.	29	2 a.m. (22nd).	E.N.E.	42	—
			6 a.m. (22nd).	E.N.E.	40	1							
			8 p.m. (22nd).	E.N.E.	41	2							
			1 a.m. (23rd).	E.N.E.	40	2							
Falmouth	9 p.m. (21st).	E.N.E.	11 p.m. (21st).	E.N.E.	47	25	Midt. (22nd).	N.E.	27	11 a.m. (22nd).	E. by N.	56	—
	2 a.m. (23rd).	N.E. by E.	3 a.m. (23rd).	E.N.E.	40	1	5 p.m. (23rd).	N.E.	15	3 a.m. (23rd).	E.N.E.	40	—
	8 p.m. (23rd).	E.N.E.	—	—	—	—	6 a.m. (24th).	E. by N.	10	11 p.m. (23rd).	E. by N.	34	Also 37 miles were recorded at 11 a.m., 24th.
										1 a.m. (24th).	E.N.E.		
										3 a.m. (24th).	E. by N.		
Yarmouth	Noon (22nd).	E.	4 p.m. (22nd).	E. by N.	46	23	9 p.m. (23rd).	N.E. by E.	33	6 a.m. (23rd).	E.N.E.	51	—

No. 21. (CYCLONIC SYSTEM, No. XXXVIII.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Oct. 26–29, 1880.													
Aberdeen	9 p.m. (27th).	E. by N.	Midt. (27th).	E. by N.	43	20	9 p.m. (28th).	N.N.E.	24	11 a.m. (28th).	E. by N.	47	—
Glasgow	3 a.m. (28th).	N.E.	—	—	—	—	8 a.m. (28th).	N.E. by E.	5	5&7a.m. (28th).	N.E.	37	—
Alnwick Castle.	10 p.m. (27th).	E.	1 a.m. (28th).	E.	46	22	2 a.m. (29th).	N.E.	28	Noon (28th).	N.E.byE.	54	—
Seaham	6 p.m. (27th).	N.E.	10 p.m. (27th).	N.E.	56	29	4 a.m. (29th).	N.E.	34	11 a.m. (28th).	N.E.	71	—
Holyhead	2 p.m. (26th).	E.	7 p.m. (26th).	E.N.E.	53	63	1 p.m. (29th).	N. by E.	71	6 p.m. (28th).	N. by E.	65	—
Valencia.	10 a.m. (26th).	N.E.	—	—	—	—	Noon (26th).	N.E.	2	11 a.m. (26th).	N.E. by E.	39	—
	2 p.m. (26th).	N.E.	5 p.m. (26th).	N.E.	42	2	7 a.m. (28th).	N.	41	8 a.m. (27th).	N.E.	56	—
			9 p.m. (26th).	N.E.	42	1							
			1 a.m. (27th).	N.E.	49	12							
			2 p.m. (27th).	N.E.	49	14							
Scilly	8 p.m. (27th).	S.W.by S.	10 p.m. (27th).	S.W.	40	1	11 p.m. (28th).	N.W.	27	2 a.m. (28th).	S.W.	49	—
			Midt. (27th).	S.W.	45	7							
			8 a.m. (28th).	W. by N.	43	1							
Falmouth.	9 a.m. (27th).	S. by W.	—	—	—	—	6 p.m. (27th).	S. by E.	9	3 p.m. (27th).	S.S.W.	39	—
	8 p.m. (27th).	W.S.W.	9 p.m. (27th)	S.W.	45	10	9 a.m. (28th).	W. by N.	13	4 a.m. (28th).	S.W. by S.	50	—
										5 a.m. (28th).	S.W.		

No. 22. (CYCLONIC SYSTEM, No. XL.)

Oct. 31–Nov. 1, 1880.													
Sandwick	—	—	3 p.m. (31st).	N.W.byW.	45	12	8 a.m. (1st).	N.W.byN.	17	4 p.m. (31st).	N. by W.	50	—
			5 a.m. (1st).	N.W.byN.	42	1							
Aberdeen	5 p.m. (31st).	W. by N.	—	—	—	—	11 p.m. (31st).	N.W.	6	5 p.m. (31st).	W. by N.	37	—
Holyhead	2 p.m. (31st).	W.	—	—	—	—	4 a.m. (1st).	N.W.byN.	14	Midt. (31st).	N.W. b N.	37	—

No. 23. (Cyclonic System, No. XLI.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity. Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Nov. 9, 1880.													
Sandwick	7 a.m. (9th).	S.S.W.	10 a.m. (9th).	W.N.W.	46	1	1 a.m. (10th).	N. by W.	18	9 p.m. (9th).	N. by W.	47	—
			Noon (9th).	W. by N.	44	7							
			8 p.m. (9th).	N. by W.	44	3							
Aberdeen	6 p.m. (9th).	W.	7 p.m. (9th).	W. by N.	49	3	2 a.m. (10th).	N.N.W.	8	8 p.m. (9th).	W.N.W.	51	—
Glasgow.	3 a.m. (9th).	S.W.	—	—	—	—	6 a.m. (9th).	S.W.	3	5 a.m. (9th).	S.W.	33	—
	8 a.m. (9th).	S.W.	9 a.m. (9th).	S.W.	41	3	2 p.m. (9th).	W.	6	9 & 11 a.m. (9th).	S.W.	42	—
Alnwick Castle.	2 a.m. (9th).	S.W.byW.	—	—	—	—	7 a.m. (9th).	S.W. by S.	5	4 a.m. (9th).	W.S.W.	36	—
	8 a.m. (9th).	S.W. by S.	—	—	—	—	10 a.m. (9th).	S.W. by S.	2	9 a.m. (9th).	S.W.byS.	39	—
	11 a.m. (9th).	S.S.W.	Noon (9th).	S.W.byW.	50	4	5 p.m. (9th).	W.S.W.	6	1 p.m. (9th).	S.W.byW.	53	—
Holyhead	11 a.m. (9th).	S.W. by S.	—	—	—	—	10 p.m. (9th).	W. by N.	11	7 p.m. (9th).	W. by S.	39	—

No. 24. (Cyclonic System, No. XLIII.)

Nov. 12–15, 1880.													
Sandwick	Noon (13th).	W.N.W.	4 p.m. (13th).	W.N.W.	40	1	6 p.m. (13th).	N.W.byN.	6	4 p.m. (13th).	W.N.W.	40	—
Glasgow	4 a.m. (13th).	S.W. by S.	—	—	—	—	10 a.m. (13th).	W. by S.	6	4 a.m. (13th).	S.W. by S.	34	—
Alnwick Castle.	6 a.m. (13th).	S.W.byW.	7 a.m. (13th).	W.S.W.	42	4	1 p.m. (13th).	W.	7	9 a.m. (13th).	W. by S.	44	—
	1 a.m. (14th).	W. by S.	—	—	—	—	6 a.m. (14th).	W.	5	2 a.m. (14th).	W.S.W.	38	—
Stonyhurst.	9 a.m. (13th).	S.W.byW.	—	—	—	—	4 p.m. (13th).	S.W.byW.	7	Noon (13th).	W.S.W.	36	—
Holyhead.	1 a.m. (13th).	S.S.W.	4 a.m. (13th).	S.S.W.	40	1	4 a.m. (14th).	S.S.W.	27	5 p.m. (13th).	S.S.W.	44	—
			7 a.m. (13th).	S.S.W.	40	3							
			5 p.m. (13th).	S.S.W.	42	5							
	—	—	6 p.m. (14th).	N.	46	8	5 a.m. (15th).	N.E.	11	8,9,&10 p.m. (14th).	N. by E.	51	—
Armagh	1 a.m. (13th).	S.S.W.	—	—	—	—	6 a.m. (13th).	S.W.	5	3 a.m. (13th).	S.W. by S.	39	—
Valencia.	1 p.m. (12th).	S.W.	8 p.m. (12th).	S.W. by S.	45	26	10 a.m. (14th).	S.	45	Midt. (12th).	S.W. by S.	50	—
			4 a.m. (14th).	S. by W.	40	4				2&3a.m. (13th).	S.		
										4 a.m. (13th).	S.W.		
Scilly	6 p.m. (13th).	S.S.W.	6 p.m. (14th).	W.S.W.	41	1	Midt. (14th).	N.W.	30	6 p.m. (14th).	W.S.W.	41	—
Falmouth.	1 a.m. (13th).	S.W.byW.	Noon (13th).	W.S.W.	41	1	4 p.m. (13th).	S.W.byW.	15	Noon (13th).	W.S.W.	41	—
	5 p.m. (13th).	S.W.	1 a.m. (14th).	S.W.	41	2	7 p.m. (14th).	W. by S.	26	2 p.m. (14th).	S.W. by S.	42	—
			11 a.m. (14th).	S.W. by S.	41	5							

No. 25. (CYCLONIC SYSTEM, No. XLV.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Nov. 15–17, 1880.													
Sandwick.	9 a.m. (16th).	N.E. by E.	2 p.m. (16th).	N.E.	40	2	8 p.m. (16th).	N.E. by N.	11	2 p.m. (16th).	N.E.	40	—
										3 p.m. (16th).	N.E. by N.		
	4 a.m. (17th).	N.E. by E.	—	—	—	—	9 a.m. (17th).	N. by E.	5	5 a.m. (17th).	N.E.	37	—
										6&7 a.m. (17th).	N.E. by N.		
Aberdeen.	10 a.m. (16th).	E.S.E.	—	—	—	—	1 p.m. (16th).	E.N.E.	3	11 a.m. (16th).	E.	37	—
	2 p.m. (16th).	N.E. by E.	—	—	—	—	7 p.m. (16th).	N.	5	4 p.m. (16th).	E. by N.	34	—
Holyhead.	9 p.m. (15th).	S.S.E.	—	—	—	—	Midt. (15th).	S.E. by S.	3	10 p.m. (15th).	S.S.E.	35	—
	2 a.m. (16th).	E. by S.	5 a.m. (16th).	S.	40	1	8 a.m. (16th).	S.W. by W.	6	5 a.m. (16th).	S.	40	—
	11 a.m. (16th).	N.W. by N.	Noon (16th).	N.W. by N.	48	7	9 p.m. (16th).	N.W.	10	Noon (16th).	N.W. by N.	59	—
	2 a.m. (17th).	N.W. by N.	4 a.m. (17th).	N.W. by N.	43	1	7 a.m. (17th).	N.W. b. W.	5	4 a.m. (17th).	N.W. by N.	43	—
Valencia	1 p.m. (15th).	S.E. by S.	—	—	—	—	4 p.m. (15th).	S.S.E.	3	3 p.m. (15th).	S.E. by S.	35	—
Scilly	Noon (15th).	S.W. by W.	1 p.m. (15th).	W.S.W.	46	3	6 p.m. (15th).	W.S.W.	6	3 p.m. (15th).	W.	50	—
	10 p.m. (15th).	S.	2 a.m. (16th).	S.W.	43	8	7 p.m. (16th)	W.	21	6 a.m. (16th).	W.S.W.	50	—
Falmouth.	2 p.m. (15th).	W.	4 p.m. (15th).	W.	41	1	6 p.m. (15th).	W.	4	4 p.m. (15th).	W.	41	—
	11 p.m. (15th).	S. by W.	1 a.m. (16th).	S.W. by S.	42	2	Noon (16th).	W.N.W.	13	4 a.m. (16th).	S.W. by W.	44	—
			4 a.m. (16th).	S.W. by W.	42	5							
Kew	10 a.m. (16th).	S.W. by S.	—	—	—	—	3 p.m. (16th).	S.W. by W.	5	2 p.m. (16th).	S.W. by S.	38	—
Yarmouth	5 p.m. (16th).	S.W. by W.	—	—	—	—	11 p.m. (16th).	W. by N.	6	6 p.m. (16th).	W.S.W.	35	—

No. 26. (Cyclonic System, No. XLVI.)

Stations.	Velocity 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Nov. 18-20, 1880.													
Aberdeen	2 a.m. (19th).	E. by N.	3 a.m. (19th).	E.N.E.	42	3	7 a.m. (19th).	N.E. by N.	5	3 a.m. (19th).	E.N.E.	43	—
Seaham	1 a.m. (19th).	N.E.	—	—	—	—	3 a.m. (19th).	N.E. by N.	2	1 a.m. (19th).	N.E.	36	—
	—	—	10 a.m. (19th).	N.E.	42	1	2 p.m. (19th).	N.E. by E.	4	10 a.m (19th).	N.E.	42	—
Holyhead	1 p.m. (18th).	E.N.E.	5 p.m. (18th).	N.E. by E.	42	4	10 a.m. (19th).	N.	21	7&8p.m. (18th).	N.E.	43	—
			2 a.m. (19th).	N.E. by N.	42	3				2&3a.m. (19th).	NE. by N.		
Scilly	10 a.m. (18th).	E.N.E.	—	—	—	—	6 p.m. (18th).	N.N.E.	8	3 p.m. (18th).	N.E. by N.	39	—
Falmouth	8 a.m. (18th).	E.N.E.	Noon (18th).	N.E.	42	5	7 p.m. (18th).	N. by W.	11	3 p.m. (18th).	N.E. by N.	45	—
	8 p.m. (18th).	N. by E.	—	—	—	—	10 p.m. (18th).	N.N.W.	2	8 p.m. (18th).	N. by E.	35	—
Yarmouth	5 p.m. (18th).	N.E.	7 p.m. (18th).	N.E. by E.	51	12	11 a.m. (20th).	N.E. by E.	42	2 a.m. (19th).	N.E. by E.	59	—
			3 p.m. (19th).	N.N.E.	40	1							

No. 27. (Cyclonic System, not numbered.)

Nov. 21-23, 1880.													
Holyhead	8 p.m. (22nd).	S.S.E.	2 a.m. (23rd).	S.S.E.	45	7	10 a.m. (23rd).	S. by E.	14	4 a.m. (23rd).	S.S.E.	51	—
Valencia	2 a.m. (21st).	S.E. by S.	—	—	—	—	5 a.m. (21st).	S.E.	3	4 a.m. (21st).	S.E. by S.	34	—
	9 a.m. (21st).	S.E.	11 a.m. (21st).	S.E.	45	25	Noon (22nd).	S.	27	1 a.m. (22nd).	S.E. by E.	55	—
Scilly	6 p.m. (22nd).	S.S.E.	10 p.m. (22nd).	S.S.E.	40	1	Midnt. (22nd).	S.W.	6	10 p.m. (22nd).	S.S.E.	40	—
Falmouth	8 p.m. (22nd).	S. by E.	—	—	—	—	5 a.m. (23rd).	S. by E.	9	3 a.m. (23rd).	S.	37	—
Yarmouth	5 p.m. (21st).	E. by N.		—	—	—	2 a.m. (22nd).	E.N.E.	9	6 p.m. (21st).	E. by N.	39	—

No. 28. (CYCLONIC SYSTEM, No. XLVIII.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Nov. 23–25, 1880.													
Sandwick.	1 a.m. (25th).	S.S.E.	4 a.m. (25th).	S.S.E.	41	1	6 a.m. (25th).	S S.W.	5	4 a.m. (25th).	S.S.E.	41	—
	Noon (25th).	S.W.byW.	—	—	—	—	11 p.m. (25th).	W. by S.	11	1 p.m. (25th).	W.S.W.	38	—
Aberdeen	2 a.m. (25th).	S.S.E.	—	—	—	—	5 a.m. (25th).	S.	3	3 a.m. (25th).	S.S.E.	36	—
Glasgow	1 a.m. (25th).	S. by E.	—	—	—	—	3 a.m. (25th).	S. by W.	2	1 a.m. (25th).	S. by E.	36	—
Alnwick Castle.	7 a.m. (25th).	S.W.	11 a.m. (25th).	W.S.W.	45	5	11 p.m. (25th).	S.W.byW.	16	1 p.m. (25th).	W.S.W.	48	—
			7 p.m. (25th).	W. by S.	40	1							
Holyhead.	4 p.m. (23rd).	S. by W.	8 p.m. (23rd).	S.	42	4	1 a.m. (24th).	S.W. by S.	9	8 p.m. (23rd).	S.	46	—
	5 p.m. (24th).	S.S.W.	9 p.m. (24th).	S. by E.	49	6	4 a.m. (25th).	S.W. by S.	11	1 a.m. (25th).	S.	53	—
	11 a.m. (25th).	S.W. by S.	1 p.m. (25th).	S.W.byW.	40	1	4 p.m. (25th).	S.W.byW.	5	1 p.m. (25th).	S.W.byW.	40	—
Armagh	8 p.m. (24th).	S. by E.	—	—	—	—	Midt. (24th).	S.S.W.	4	10 p.m. (24th).	S. by E.	38	—
Valencia.	10 a.m. (23rd).	S.	Noon (23rd).	S.	46	5	6 p.m. (23rd).	S.W.	8	4 p.m. (23rd).	S.	53	—
	Midt. 23rd)	S.	2 a.m. (24th).	S.	43	2	4 a.m. (24th).	S.W.	4	3 a.m. (24th).	S.	45	—
	11 a.m. (24th).	S. by W.	2 p.m. (24th).	S.	51	9	3 a.m. (25th).	W.S.W.	16	8 p.m. (24th).	S.	64	—
	5 a.m. (25th).	S.W.	8 a.m. (25th).	SW. by S.	44	1	4 p.m. (25th).	S.W. by S.	11	8 a.m. (25th).	S.W. by S.	44	—
Scilly	10 p.m. (24th).	S.	2 a.m. (25th).	S.W.	40	1	3 p.m. (25th).	W. by S.	17	Noon (25th).	W.S.W.	42	—
			Noon (25th).	W.S.W.	42	1							
Falmouth.	2 a.m. (24th).	S.S.W.	—	—	—	—	8 a.m. (24th.)	S.W. by S.	6	7 a.m. (24th).	S.S.W.	36	—
	9 p.m. (24th).	S.S.W.	1 a.m. (25th).	S.S.W.	44	3	7 a.m. (25th).	W.S.W.	10	2 a.m. (25th).	SW. by S.	47	—
	8 a.m. (25th).	W.S.W.	11 a.m. (25th).	W.S.W.	41	1	1 p.m. (25th).	W.	5	11 a.m. (25th).	W.S.W.	41	—
Kew	2 a.m. (25th).	S. by W.	—	—	—	—	8 a.m. (25th).	S.W. by S.	6	5 a.m. (25th).	S.	35	—
										6 a.m. (25th).	S.S.W.		
Yarmouth	6 a.m. (25th).	S. by W.	—	—	—	—	9 a.m. (25th).	S.S.W.	3	6 a.m. (25th).	S. by W.	35	—

No. 29. (Cyclonic System, No. XLIX.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Nov. 25–27, 1880.													
Sandwick	6 a.m. (26th).	S. by E.	8 a.m. (26th).	S.E. by S.	47	8	5 p.m. (27th).	W. by S.	35	10 p.m. (26th).	W.S.W.	53	—
			6 p.m. (26th).	S.W.byW.	50	7							
			2 a.m. (27th).	W.S.W.	40	1							
			9 a.m. (27th).	W. by S.	41	4							
Aberdeen	6 a.m. (26th).	S.S.E.	9 a.m. (26th).	S. by E.	42	1	8 p.m. (26th).	S.W.	14	4 p.m. (26th).	S.W. by S.	47	—
			1 p.m. (26th).	S.S.W.	43	4							
Glasgow	6 a.m. (26th).	S. by E.	9 a.m. (26th).	S.	48	8	9 p.m. (26th).	S.W. by S.	15	1 p.m. (26th).	S.W. by S.	53	—
Alnwick Castle.	6 a.m. (26th).	S. by E.	—	—	—	—	8 a.m. (26th).	S. by E.	2	7 a.m. (26th).	S. by E.	35	—
	11 a.m. (26th).	S.S.W.	Noon (26th).	S.S.W.	42	1	10 a.m. (27th).	W.	23	2 p.m. (26th).	S.W.	52	—
			2 p.m. (26th).	S.W.	47	7							
			11 p.m. (26th).	S.W.	43	1							
			3 a.m. (27th).	S.W.byW.	45	4							
	5 p.m. (27th).	S.W.byW.	—	—	—	—	8 p.m. (27th).	W.S.W.	3	6 p.m. (27th).	W.S.W.	36	—
Seaham	7 a.m. (26th).	S. by E.	—	—	—	—	3 p.m. (26th).	S.S.W.	8	7 & 8 a.m. (26th).	S. by E.	37	—
Stonyhurst	4 a.m. (26th).	S. by E.	5 a.m. (26th).	S.S.E.	42	2	8 a.m. (26th).	S.S.W.	4	5 a.m. (26th).	S.S.E.	42	—
										6 a.m. (26th).	S. by E.		
Holyhead.	10 p.m. (25th).	S. by W.	Midt. (25th).	S. by E.	49	13	4 p.m. (26th).	S.W. by S.	18	3 & 4 a.m. (26th).	S.S.E.	57	—
	6 p.m. (26th).	S.W. by S.	—	—	—	—	4 a.m. (27th).	S.W.byW.	10	10 p.m. (26th).	S.W. by S.	39	—
Armagh	2 a.m. (26th).	S.E. by S.	7 a.m. (26th).	S.	49	5	4 p.m. (26th).	S.W. by S.	14	9 a.m. (26th).	S.S.W.	56	—
Valencia	5 p.m. (25th).	S.S.W.	8 p.m. (25th).	S.S.E.	58	13	11 p.m. (26th).	W. by S.	30	5 a.m. (26th).	S.S.W.	75	—
			3 p.m. (26th).	S.W.	42	1							
			5 p.m. (26th).	S.W.	41	1							
			8 p.m. (26th).	S.W.byW.	40	1							
Scilly	11 p.m. (25th).	S.S.E.	—	—	—	—	6 a.m. (26th).	S.S.W.	7	1 a.m. (26th).	S.S.E.	39	—
	11 a.m. (26th).	W.S.W.	—	—	—	—	6 p.m. (26th).	W. by S.	7	Noon & 1 p.m. (26th).	W.S.W.	35	—
	9 p.m. (26th).	W.S.W.	—	—	—	—	1 a.m. (27th).	W.S.W.	4	10 p.m. (26th).	W.S.W.	38	—
Falmouth.	Midt. (25th).	S.	3 a.m. (26th).	S.W. by S.	43	3	7 a.m. (26th).	S.W.	7	5 a.m. (26th).	S.S.W.	44	—
	11 a.m. (26th).	S.W.	—	—	—	—	5 p.m. (26th).	W.S.W.	6	Noon (26th).	S.W.byW.	38	—

No. 30. (Cyclonic System, not numbered.)

Stations.	Velocity 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Nov. 27-29, 1880.													
Sandwick	2 a.m. (28th).	S. by W.	—	—	—	—	1 p.m. (28th).	S.W.	11	10 a.m. (28th).	S. by W.	36	—
Glasgow	11 a.m. (28th).	S.S.W.	—	—	—	—	9 p.m. (28th).	S.W.byW.	10	11 a.m. (28th).	S.S.W.	37	—
										3 p.m. (28th).	S. by W.		
Alnwick Castle.	10 p.m. (28th).	S.W. by S.	11 p.m. (28th).	S.W.byS.	42	2	4 a.m. (29th).	W.S.W.	6	Midt. (28th).	S.W. by S.	43	—
Seaham	2 p.m. (28th).	S.S.W.	—	—	—	—	10 p.m. (28th).	S.	8	5 p.m. (28th).	S. by W.	37	—
Holyhead	11 p.m. (27th).	S.S.W.	3 a.m. (28th).	S. by W.	44	20	6 a.m. (29th).	S. by W.	31	5 p.m. (28th).	S. by W.	51	—
Armagh	5 a.m. (28th).	S. by W.	—	—	—	—	10 a.m. (28th).	S. by W.	5	9 a.m. (28th).	S. by W.	39	—
	11 a.m. (28th).	S. by W.	—	—	—	—	9 p.m. (28th).	S.W. by S.	10	3 p.m. (28th).	S. by W.	37	—
Valencia	2 p.m. (27th).	S.W.	8 p.m. (27th).	S.	55	23	8 p.m. (28th).	S.W. by S.	30	11 a.m. (28th).	S. by W.	61	—

No. 31. (Cyclonic System, No. I.)

Nov. 29 to Dec. 1, 1880.													
Sandwick	Midt. (28th).	S.W. by W.	7 a.m. (29th).	W.S.W.	42	2	8 a.m. (30th).	W.	32	8 p.m. (29th).	W. by S.	44	—
			1 p.m. (29th).	W.S.W.	40	1							
			3 p.m. (29th).	W.S.W.	42	7				2 a.m. (30th).			
			2 a.m. (30th).	W. by S.	44	1							
Alnwick Castle.	4 p.m. (30th).	S.W. by S.	5 p.m. (30th).	S.W.by S.	46	10	8 a.m. (1st).	S.W. by S.	16	8 p.m. (30th).	W.S.W.	53	—
			6 a.m. (1st).	W. by S.	40	1							
Holyhead	6 a.m. (30th).	S.	9 a.m. (30th.)	S.	41	1	Midt. (30th).	S.	18	3 p.m. (30th).	S.	44	—
			2 p.m. (30th)	S.	41	4							
			9 p.m. (30th).	S. by W.	40	1							
	3 a.m. (1st).	S.	—	—	—	—	Noon (1st).	S.W.byW.	9	10 a.m. (1st).	S. by W.	37	—
Valencia	2 a.m. (30th).	S.S.E.	4 a.m. (30th).	S.	43	6	5 a.m. (1st).	W.	27	3 a.m. (1st).	S.	47	—
			1 a.m. 1st).	S. by E.	43	3							

No. 32. (CYCLONIC SYSTEM, not numbered.)

Stations.	Velocity 30–40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Dec. 7–9, 1880.													
Sandwick	3 p.m. (7th).	W.S.W.	4 p.m. (7th).	W.S.W.	40	1	1 p.m. (9th).	W.N.W.	46	6 a.m. (9th).	W.	48	—
			7 p.m. (7th).	W. by S.	42	8							
			4 a.m. (8th).	W.S.W.	43	1							
			2 p.m. (8th).	W. by S.	44	2							
			5 p.m. (8th).	W.	42	4							
			Midt. (8th).	W.N.W.	40	1							
			3 a.m. (9th).	W.	43	8							
Alnwick Castle.	—	—	5 p.m. (7th).	W. by S.	50	9	6 a.m. (8th).	W.N.W	13	8 p.m. (7th).	W. by S.	60	—
			3 a.m. (8th).	W.S.W.	41	1							
	—	—	7 a.m. (8th).	W. by S.	53	15	11 p.m. (8th).	W.	16	11 a.m. (8th).	W. by S.	65	—

No. 33. (CYCLONIC SYSTEM, No. LII.)

Dec. 10, 1880.													
Sandwick	10 p.m. (9th).	W.	Midt. (9th).	W.	54	25	2 a.m. (11th).	W. by N.	28	2 p.m. (10th).	W.N.W.	72	—
Aberdeen	10 a.m. (10th).	W. by N.	11 a.m. (10th).	W. by N.	45	14	1 a.m. (11th).	N.W. by N.	15	6 p.m. (10th).	W.N.W.	52	—
Glasgow.	Midt. (9th).	W.S.W.	—	—	—	—	7 a.m. (10th).	W. by N.	7	4 a.m. (10th).	W. by S.	38	—
										5 a.m. (10th).	W.S.W.		
	No (10th).	W. by S.	—	—	—	—	5 p.m. (10th).	W.	5	2 p.m. (10th).	W. by S.	36	—
Alnwick Castle.	—	—	1 a.m. (10th).	W. by N.	40	1	9 a.m. (10th).	W.N.W.	8	5 a.m. (10th).	W.N.W.	45	—
			5 a.m. (10th).	W.N.W.	45	1							
			8 a.m. (10th).	W.N.W.	41	1							

No. 34. (Cyclonic System, No. LIII.)

Stations.	Velocity 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Dec. 11–12, 1880.													
Sandwick	—	—	11 a.m. (11th).	W.S.W.	57	23	?	?	?	5 a.m. (12th).	W. by N.	72*	Clock stopped between 10 a.m. and 3 p.m. 12th; at 9 a.m. the velocity was 65 miles, and at 4 p.m. 32 miles, and then fell below 30 miles.
Aberdeen	8 a.m. (12th).	W. by N.	11 a.m. (12th).	W.N.W.	40	1	2 p.m. (12th).	W.N.W.	6	11 a.m. (12th).	W.N.W.	40	—
Glasgow	11 a.m. (11th).	S.W.byW.	—	—	—	—	2 p.m. (11th).	W.S.W.	3	Noon (11th).	W.S.W.	38	—
Aln-wick Castle.	—	—	11 a.m. (11th).	W.S.W.	46	4	7 p.m. (11th).	W. by N.	8	Noon (11th).	S.W.byW.	51	—
	8 p.m. (11th).	W. by N.	—	—	—	—	Midt. (11th).	W. by S.	4	8 p.m. (11th).	W. by N.	33	—
	2 a.m. (12th).	W.	—	—	—	—	7 a.m. (12th).	W. by N.	5	3 a.m. (12th).	W.	34	—
										6 a.m. (12th).	W. by N.		
Stony-hurst.	5 p.m. (11th).	W.S.W.	—	—	—	—	11 p.m. (11th).	W.	6	8 p.m. (11th).	W. by S.	38	—
	1 a.m. (12th).	W.	—	—	—	—	8 p.m. (12th).	W. by S.	19	11 a.m. (12th).	W. by N.	38	—

* Probable.

No. 35. (Cyclonic System, No. LIV.)

Dec. 13–14, 1880.													
Sandwick	4 a.m. (13th).	WNW.	7 a.m. (13th).	N.W.b.W.	41	1	?	?	?	11 a.m. & Noon (13th).	N.W.	57*	Clock stopped between 9 p.m. 13th and 10 a.m. 14th. The velocity at 8 p.m. 13th was 53 miles, and at 11 a.m. 14th 29 miles.
			10 a.m. (13th).	N.W.b.W.	50	4				7 p.m. (13th).	N.W. by W.		
			5 p.m. (13th).	N.W. byN.	53	4							
Holyhead	1 a.m. (13th).	W.S.W.	—	—	—	—	8 a.m. (13th).	W.S.W.	7	2 a.m. (13th).	W.S.W.	37	—
Scilly -	11 p.m. (13th).	W. by N.	—	—	—	—	3 a.m. (14th).	W.	4	2 a.m. (14th).	W.	33	—

* Highest velocity recorded.

No. 36. (Cyclonic System, No. LVI.)

Stations.	Velocity. 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Dec. 18–20, 1880.													
Sandwick.	Midt. (17th).	S. by E.	—	—	—	—	6 a.m. (18th).	S.E. by S.	6	2 a.m. (18th).	S. by E.	36	—
	7 a.m. (18th).	S.S.E.	9 a.m. (18th).	S. by E.	44	12	9 p.m. (18th).	S.E. by S.	14	Noon (18th).	S. by E.	50	—
	2 a.m. (19th).	S.E. by S.	—	—	—	—	6 a.m. (19th).	S.E. by S.	4	4 a.m. (19th).	S.E. by E.	35	—
Aberdeen.	10 a.m. (18th).	S. by E.	—	—	—	—	5 p.m. (18th).	S. by E.	7	4 p.m. (18th).	S.S.E.	37	—
	9 p.m. (19th).	W. by N.	—	—	—	—	Midt. (19th).	W.N.W.	3	10 p.m. (19th).	W.N.W.	35	—
Glasgow	8 p.m. (18th).	S.by W.	10 p.m. (18th).	S. by W.	41	1	4 p.m. (19th).	W. by S.	20	10 p.m. (18th).	S. by W.	41	—
			5 a.m. (19th).	S.W. by S.	40	1							
Alnwick Castle.	3 a.m. (19th).	S.W. by S.	—	—	—	—	7 a.m. (19th).	S.S.W.	4	4 a.m. (19th).	S.W. by S.	37	—
	—	—	9 a.m. (19th).	W.S.W.	54	17	4 a.m. (20th).	W. by S.	19	Noon (19th).	W. by S.	70	—
Seaham	5 p.m. (19th).	S.W.	—	—	—	—	9 p.m. (19th).	S.W.byW.	4	7 p.m. (19th).	S.W.byW.	36	—
Stonyhurst.	11 a.m. (19th).	W.S.W.	—	—	—	—	5 p.m. (19th).	W. by S.	6	11 a.m. (19th).	W.S.W.	39	—
Holyhead.	5 a.m. (18th).	S.S.E.	7 a.m. (18th).	S. by E.	44	2	10 a.m. (18th).	S.S.W.	5	8 a.m. (18th).	S. by E.	47	—
	Noon (18th).	S.W. by S.	—	—	—	—	4 p.m. (18th).	W. by S.	4	2 p.m. (18th).	W.S.W.	35	—
	5 p.m. (18th).	SWb.W	11 p.m. (18th).	S.W.	40	1	4 p.m. (19th).	W.S.W.	23	11 p.m. (18th).	S.W.	40	—
			1 a.m. (19th).	W.S.W.	40	1				1 a.m. (19th).	W.S.W.		
			8 a.m. (19th).	W. by S.	40	1				8 a.m. (19th).	W. by S.		
Valencia.	9 a.m. (18th).	W.S.W.	—	—	—	—	11 p.m. (18th).	W. by N.	14	6 p.m. (18th).	W. by N.	38	—
	1 a.m. (19th).	W. by N.	—	—	—	—	5 a.m. (19th).	W.	4	3 a.m. (19th).	W. by N.	39	—
Scilly	8 a.m. (18th).	S.W.	2 a.m. (19th).	W.	41	4	10 a.m. (19th).	W.	26	2 a.m. (19th).	W.	42	—
	11 p.m. (19th).	S.W.	2 a.m. (20th).	SW.by.W	41	1	5 a.m. (20th).	W. by N.	6	2 a.m. (20th).	S.W.byW.	41	—
Falmouth.	Noon (18th).	S.W. b W.	1 p.m. (18th).		40	1	3 p.m. (18th).	W. by S.	3	1 p.m. (18th).	W.S.W.	40	—
	—	—	1 a.m. (20th).		44	3	5 a.m. (20th).	W. by S.	4	3 a.m. (20th).	S.W.byW.	46	—

No. 37. (CYCLONIC SYSTEM, No. LVIII.)

Stations.	Velocity 30-40 Miles per Hour.		Velocity Exceeding 40 Miles per Hour.				Velocity Fell below 30 Miles per Hour.		Total No. of Hours the Vel. above 30 Mls.	Maximum Velocity.			Remarks.
	Commenced.	Direction of Wind.	Commenced.	Direction of Wind.	Mean Vel.	Duration in Hours.	Ended.	Direction of Wind.		Hour.	Direction of Wind.	Velocity.	
Dec. 23-26, 1880.													
Sandwick.	8 p.m. (23rd).	E.N.E.	—	—	—	—	4 a.m. (24th).	E.N.E.	8	3 a.m. (24th).	E.N.E.	35	—
	8 a.m. (25th).	N.W. byN.	11 a.m. (25th).	N.N.W.	49	12	11 p.m. (25th).	N.N.W.	15	1 p.m. (25th).	N.W.byN.	53	—
										4 p.m. (25th).	N.N.W.		
	2 a.m. (26th).	N.W.by N.	3 a.m. (26th).	N.W.	43	2	6 a.m. (26th).	N.W.byN.	4	3 a.m. (26th).	N.W.	45	—
Aberdeen	1 p.m. (25th).	W.N.W.	9 p.m. (25th).	W.N.W.	40	1	8 a.m. (26th).	W.N.W.	19	9 p.m. (25th).	W.N.W	40	—
			2 a.m. (26th).	W.N.W.	40	1				2 a.m. (26th).			
Holyhead	10 a.m. (24th).	W. by N.	Noon (24th).	N.W.	48	10	3 p.m. (25th).	W. by N.	29	3 p.m. (24th).	N.W.	55	—
Valencia	5 a.m. (23rd).	S.S.W.	—	—	—	—	11 a.m. (23rd).	S.W. by S.	6	6 a.m. (23rd).	S. by W.	39	—
Scilly	6 p.m. (23rd).	W.S.W.	9 p.m. (23rd).	W. by S.	40	1	Midt. (23rd).	W.S.W.	6	9 p.m. (23rd).	W. by S.	40	—
	1 a.m. (24th).	W.S.W.	4 a.m. (24th).	W.	43	3	9 a.m. (24th).	W. by N.	8	6 a.m. (24th).	W. by N.	45	—
Falmouth.	5 p.m. (23rd).	S.W. by S.	—	—	—	—	11 p.m. (23rd).	W.S.W.	6	8 p.m. (23rd).	S.W.byW.	38	—
	Midt. (23rd).	S.W.	—	—	—	—	7 a.m. (24th).	W.N.W.	7	5 a.m. (24th).	W.	36	—

TABLE OF ANTICYCLONIC SYSTEMS.—OCTOBER-NOVEMBER 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XVII. October 10-19.	No. XVIII. October 22-24.	No. XIX. October 30-November 13.
Form	Varying	Uncertain	Varying.
Size	Uncertain; constantly changing	Probably small	Large.
Height	Moderate	Slight	Great.
Where first Observed	Off west coast of Ireland	Over Shetlands	On north coast of Ireland.
Direction of Motion	Southerly	Southerly	Easterly, then Southerly, and then South-easterly.
Rate of Motion	Very slow	Moderate	Moderate.
Regions passed over	Ireland, England, and west of France.	Scotland and Ireland	The United Kingdom and France.
Termination	Broke up on the appearance of depression No. XXXIV.	Passed out to the west of Ireland	Passed down to south of France, and then eastwards.
Accompanying Wind	Very light Northerly at first, then turning to North-east.	Easterly	Easterly in the south.
„ Weather	Dry	Fine, but several auroras reported	Dry in these islands until November 7th, when depression XLI. appeared in the north.
REMARKS			This anticyclone was apparently broken into two about November 8th, when a general wave of lower pressure passed over these islands and France, but there does not seem to be sufficient reason to separate the anticyclone which reappeared over Ireland on the 8th from that which preceded it.

TABLE OF ANTICYCLONIC SYSTEMS.—NOVEMBER–DECEMBER 1880.

NATURE OF CHARACTERISTICS OBSERVED.	No. XX. November 19-22.	No. XXI. November 28—December 15.
Form	Oval	Uncertain.
Size	Small	Large.
Height	Moderate	Great at times.
Where first Observed	Over Scotland	Over Switzerland.
Direction of Motion	Easterly	Westerly.
Rate of Motion	Rapid	Slow.
Regions passed over	The north of Great Britain and North Sea	France, occasionally affecting England.
Termination	Passed out to central Russia on 23rd	Passed out to the Atlantic off Spanish coast.
Accompanying Wind	Generally light, but strong Southerly winds in Ireland at the end of the period.	General South-westerly winds in these Islands.
„ Weather	Dry generally	Dry, but very cloudy in Great Britain at the end of the time.
REMARKS	—	—

SECTION III.

REMARKS FOR OCTOBER.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—The principal feature of the wind chart is the great prevalence of Easterly winds, except along the east coast of Great Britain where the most frequent direction was North, and even North-west at Aberdeen. The Easterly winds began at the southern stations on the 4th with depression No. XXXII., and subsequently extended northwards. Inasmuch as the tracks of most of the depressions experienced during the month lay to the south of our stations, the Easterly winds continued at many of the stations until the end of the month, and more than once rose to the force of a severe gale. In the north occasional Northerly and North-westerly winds appeared. During the entire month there was a general absence of winds from points between South and West.

Pressure.—The distribution of mean pressure in October was very peculiar. The normal conditions are that the isobars run from west-south-west to east-north-east, the lowest, that for 29·72 ins., skirting the north of Scotland, while the highest, that for 29·90 ins., passes from Portland to Harwich. In the present month an anticyclone apparently lay off the north-west of Ireland, the isobar of 30·0 ins. sweeping from Galway to the Giant's Causeway, and thence through Skye to the Sound of Harris, while the lowest curve, that for 29·85 ins., took a sinuous course from Scilly, so as to enclose the north coast of France, and then trended upwards into the North Sea.

Accordingly while the barometers in the south-east of England were nearly 0·10 in. below their average, and the readings in Cornwall were almost normal, those in Ireland and Scotland were as much as 0·2 in. or 0·3 in. too high. The extreme readings were remarkable for the season, the maximum was 30·48 ins. at Aberdeen on the 11th, and the minimum 28·70 ins. at St. Ann's Head on the 28th, during the passage of depression No. XXXVIII. Range was greatest at the southern stations as the tracks of the depressions lay mostly over the south of the kingdom.

Movements of the Depressions.—The movements of depressions were almost entirely confined to the southern and eastern parts of the United Kingdom and North Sea. The track of No. XXXIII. was very remarkable, as it apparently turned twice on itself, completing two loops over the English Channel. Several minor systems formed themselves over the eastern parts of the area covered by the map. No single track passed over either Ireland or Scotland.

Temperature was decidedly low, as much as 5° below the mean over the Midland counties and north of England as well as over Wales and Ireland. In the extreme north of Scotland and on the south coast of England the deficiency was not so great. The range was highest at Braemar, where it reached 45°·2 owing to the severe frost on the 20th. At Pinmore and Buxton it was about 40°. Elsewhere it was uniform, varying from about 30° to 35°. The maximum readings were recorded, with but few exceptions, on the 1st. They were mostly low, only exceeding 67° at Jersey and Marlborough. In the Shetlands the highest reading was only 54°. The minima occurred generally on the 20th or 21st. For the most part they were not far from the freezing point, but a temperature of 11°·4 was registered at Braemar on the 20th, 17°·5 at Pinmore, 18°·4 at Buxton, and 19°·4 at Markree. At Scilly the thermometer did not fall below 39°.

Vapour Tension was low on the whole, but highest on the Channel coast, where the rainfall also was excessive. It only reached ·340 inches at Jersey, and at Braemar it was only 0·201, while Sumburgh Head and Glenalmond show hardly higher values. The inland portions of Ireland and of northern England were also relatively dry.

Relative Humidity was highest in Cumberland, where 96 per cent. was reached at Scaleby near Carlisle. The Hebrides closely approached that value with 95 per cent. at Stornoway. The interior of England and Ireland had over 90 per cent., and the driest air was at Glenalmond and in the district just south of the Grampians.

Rain was excessive in the English Channel, 10 ins. being exceeded at Jersey and at Falmouth. Over England generally it was heavy, exceeding 7 ins. in London and 5 ins. at many other stations. Conversely Ireland and Scotland were very dry; Colebrooke, Markree, and Mullaghmore in the former island, and Ardrossan, Rothesay, Glasgow, and Glenalmond in Scotland all fall short of 1 in., in fact at the last named station the fall was only 0·26 in.

The exceptionally heavy rain of the 27th has already been mentioned (p. 98).

Bright Sunshine shows a falling off towards the winter. Valencia comes out highest with 51 per cent. of possible duration, Parsonstown and Markree coming next with 37 per cent. The least value (15 per cent.) was at Hillington, a remarkable fact, as the station is usually a sunny one.

TABLE showing the PREVALENCE of BRIGHT SUNSHINE at STATIONS in the BRITISH ISLANDS during the MONTH of OCTOBER 1880.

STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.	STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.
Sandwick	98	31	Southampton	84	26
Stornoway	101	32	Southbourne	78	24
Aberdeen	98	31	Glasgow	98	31
Glenalmond	—	—	Silloth	—	—
Durham	74	23	Douglas	115	36
York	—	—	Stonyhurst	91	28
Kelstern	—	—	Llandudno	59	18
Hillington	48	15	Pembroke	112	35
Geldeston	77	24	Falmouth	96	30
Cambridge	76	24	Markree Castle	118	37
Leicester	51	16	Armagh	105	33
Churchstoke	71	22	Dublin	117	36
Cirencester	82	25	Parsonstown	120	37
Oxford	86	27	Valencia	166	51
London*	62	19	Jersey	116	35

* The value for London is the mean of observations taken at Hampstead and Kew Observatory.

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TABLE A., OCTOBER.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of OCTOBER 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).							TEMPERATURE In the Shade (In Degrees Fahrenheit).							HYGROMETRIC VALUES.		RAIN.
	Mean for the Month.	Extremes.					Range.	Mean for the Month.	Extremes.				Range.		Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	FALL (In English Inches).
		Minimum.			Maximum.				Minimum.		Maximum.						
		Reading.	Date.		Reading.	Date.			Reading.	Date.	Reading.	Date.					
	ins.	ins.	D.	H.	ins.	D. H.	ins.	°	°	D. H.	°	D.	H.	°	in.	%	ins.
Valencia	29·965	28·880	27th,	9 p.m.	30·394	24th, 10 p.m.	1·514	47·1	32·9	30th, 8 a.m.	65·6	1st,	3 p.m.	32·7	·261	81	2·495
Armagh	30·016	29·067	28th,	4 a.m.	·452	13th, 9 p.m.	1·385	43·3	26·3	22nd, 6 a.m.	59·1	1st,	2 p.m.	32·8	·239	85	1·110
Glasgow	29·968	·173	28th,	4 a.m.	·454	11th, Midt.	1·281	43·0	24·1	20th, 8 a.m.	60·0	1st,	1 p.m.	35·9	·217	79	0·786
Aberdeen	·958	29·372	28th,	5 a.m.	·478	11th, 9 p.m.	1·106	42·6	28·3	20th, 3 a.m.	62·2	1st,	1 p.m.	33·9	·217	80	3·000
Falmouth	·875*	28·733	28th,	5 a.m.	·425	14th, 10 a.m.	1·692	49·8	36·5	30th, 6 a.m.	62·0	2nd,	Noon	25·5	·287	81	10·815
Stonyhurst	·933	·875	28th,	6 a.m.	·417	14th, 8 a.m.	1·542	43·8	24·8	20th, 4 a.m.	60·4	1st,	1 p.m.	35·6	·224	77	2·867
Kew	29·890	28·767	28th,	10 a.m.	30·434	14th, 10 a.m.	1·667	46·5	36·7	24th, 7 a.m.	64·1	7th,	3 p.m.	33·4	·268	86	5·945

* Mean for one day is approximate.

TABLE B., OCTOBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The Values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Means of			Absolute Extremes.			
						Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·953	43·1	41·7	42·4	38·9	47·6	43·3	29·2	20th	60·0	17th
	Dunrobin Castle S	29·986	44·0	40·8	42·4	36·6	49·8	43·2	27·0	20th	57·4	1st
1. SCOTLAND, E.	Braemar S	29·976	36·8	37·0	36·9	31·8	46·7	39·3	11·4	20th	57·1	1st
	Dundee S	29·967	42·3	40·5	41·4	36·8	50·2	43·5	24·2	20th	61·7	1st
	Glenalmond	29·987	42·2	40·2	41·2	35·3	49·8	42·6	22·9	20th	63·7	1st
2. ENGLAND, N.E.	Seaham	29·939	46·7	44·3	45·5	40·3	49·8	45·1	29·3	20th	61·7	1st
	Durham*	29·926	46·3	41·2	43·8	37·1	50·1	43·6	23·7	22nd	64·8	1st
	York	29·922	44·0	43·0	43·5	37·8	51·4	44·6	24·0	20th	63·0	1st
	Hull	29·906	45·4	43·9	44·7	39·5	50·7	45·1	28·5	24th	60·9	1st
	Kelstern M	29·905	44·5	42·4	43·5	38·0	50·9	44·5	27·5	20th	60·9	1st
3. ENGLAND, E.	Hillington M	29·880	46·6	43·3	45·0	38·1	53·3	45·7	25·9	24th	61·9	5th
	Geldeston	29·877	47·6	46·2	46·9	41·5	53·4	47·5	30·9	25th	63·6	5th
	Chigwell Row	29·918	47·0	45·2	46·1	40·4	54·0	47·2	29·0	21st	65·2	7th
4. MIDLAND COUNTIES.	Wakefield M	29·929	44·0	42·9	43·5	37·7	50·7	44·2	23·4	22nd	61·8	1st
	Buxton M	29·956	42·2	39·6	40·9	34·0	48·0	41·0	18·4	20th	59·6	1st
	Cheadle M	29·918	42·7	41·6	42·1	37·6	48·9	43·3	27·1	30th	60·9	1st
	Leicester	29·909	44·2	43·8	44·0	38·7	51·0	44·9	28·1	20th	60·8	2nd
	Uppingham	29·902	43·8	42·2	43·0	37·9	50·3	44·1	27·2	20th	59·6	1st
	Oscott	29·920	43·2	41·8	42·5	37·6	50·2	43·9	26·0	24th	64·1	1st
	Churchstoke M	29·945	41·5	41·3	41·4	35·4	48·9	42·2	22·4	20th	65·8	1st
	Cheltenham M	29·907	44·6	42·5	43·6	35·7	51·7	43·7	21·6	24th	64·8	1st
5. ENGLAND, S.	Marlborough M	29·908	44·7	42·6	43·7	37·7	53·0	45·4	26·0	21st	67·2	1st
	Strathfield Turgiss M	29·900	47·0	43·8	45·4	38·7	54·0	46·4	27·2	24th	66·9	1st
	Ramsgate M	29·887	49·9	48·2	49·1	43·4	54·8	49·1	32·5	25th	66·1	5th
	Folkestone	—	—	—	—	—	—	—	—	—	—	—
	Southampton	29·910	47·3	45·4	46·4	40·8	54·4	47·6	28·3	21st	66·4	1st
	St. Leonards	29·879	48·9	47·8	48·4	43·8	54·7	49·3	31·3	21st	66·2	6th
6. SCOTLAND, W.	Laudale	30·003	43·1	42·2	42·7	36·7	50·8	43·8	25·5	20th	59·8	1st
	Rothesay S	30·004	45·7	41·8	43·8	37·1	52·0	44·6	27·2	20th	60·1	1st
	Pinmore S	29·980	41·3	40·2	40·8	33·7	52·9	43·3	17·5	22nd	60·1	1st
7. ENGLAND, N.W.	Scaleby M	29·952	42·4	41·0	41·7	35·2	51·0	43·1	22·0	22nd	62·0	1st
	Douglas (Isle of Man)	29·956	46·7	43·9	45·3	39·4	51·0	45·2	26·1	24th	60·7	1st
	Llandudno M	29·945	46·9	46·5	46·7	41·7	51·1	46·4	30·0	22nd	63·3	1st
8. ENGLAND, S.W.	St. David's	29·905	48·2	46·6	47·4	42·4	52·7	47·6	33·4	20th	61·0	1st
	Carmarthen M	29·904	45·9	43·9	44·9	38·4	53·6	46·0	22·8	21st	66·6	1st
	Dartmoor M	29·900	42·8	41·3	42·1	37·4	47·9	42·7	27·0	22nd	57·4	5th
	Babbacombe M	29·879	49·0	46·5	47·8	42·2	54·5	48·4	30·6	25th	65·5	1st
9. IRELAND, N.	Londonderry	30·037	44·2	42·1	43·2	37·1	50·6	43·9	26·6	22nd	59·2	1st
	Brookeborough	29·995	40·6	39·7	40·2	34·6	50·8	42·7	21·0	22nd	60·0	10th
	Markree Castle	30·023	44·1	40·3	42·2	34·2	52·1	43·2	19·4	22nd	59·2	1st
10. IRELAND, S.	Dublin	29·985	45·1	44·7	44·9	40·5	50·3	45·4	28·2	20th	61·8	1st
	Parsonstown	30·009	41·1	40·1	40·6	34·3	51·6	43·0	21·6	21st	62·3	1st
CHANNEL	Jersey (St. Aubin's)	29·882	54·4	51·4	52·9	47·3	58·1	52·7	37·8	30th	67·8	6th

NOTE.—The stations marked M are in connexion with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of OCTOBER 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·239	·223	·231	85	86	86	6·5	6·9	6·7	4·280	·640	2nd	24	3	4	0	2	13	5	15	12	1	0	0	0	13	8	13
·241	·229	·235	82	88	85	—	—	—	3·370	1·010	2nd	19	4	0	0	—	1	0	12	9	9	3	2	5	7	15	0
·199	·202	·201	89	91	90	5·8	4·6	5·2	1·910	·280	2nd	14	10	0	0	2	0	0	15	11	8	0	6	7	8	7	0
·220	·215	·218	80	84	82	7·0	8·0	7·5	1·400	·400	27th	7	3	1	0	1	17	2	5	20	2	0	0	2	11	22	0
·215	·204	·210	78	80	79	4·6	4·0	4·3	0·257	·113	28th	5	2	0	0	7	3	1	16	11	0	0	3	6	6	12	8
·255	·252	·254	81	86	84	7·3	6·3	6·8	4·492	1·260	27th	21	2	4	0	2	14	3	4	21	3	0	0	5	14	10	5
·265	·243	·254	84	91	88	7·4	5·2	6·3	5·906	1·548	27th	20	3	5	0	4	13	0	9	22	1	1	1	6	5	15	2
·257	·249	·253	89	90	90	6·5	5·5	6·0	3·820	1·500	27th	15	2	3	0	3	12	1	23	8	5	0	1	2	15	6	2
·264	·258	·261	88	90	89	7·5	5·2	6·4	6·280	1·700	27th	19	0	0	0	3	14	1	6	19	8	1	0	1	9	7	11
·263	·255	·259	88	92	90	6·9	5·5	6·2	6·377	1·640	27th	19	3	0	0	4	13	0	7	16	3	0	1	7	8	16	4
·287	·262	·275	89	91	90	8·0	5·8	6·9	4·729	·740	4th	16	0	3	0	2	12	1	4	17	8	4	1	8	5	15	0
·286	·279	·283	85	87	86	8·2	5·6	6·9	3·930	·810	6th	21	1	3	0	4	16	3	11	11	6	0	1	7	16	7	3
·293	·278	·286	91	92	92	7·5	6·7	7·1	6·040	1·500	9th	18	2	0	0	2	13	0	13	22	4	1	0	7	4	7	4
·249	·242	·246	84	86	85	6·8	6·5	6·7	5·750	2·180	27th	16	2	0	0	3	12	1	20	8	2	2	0	5	20	5	0
·236	·227	·232	87	91	89	7·4	5·7	6·6	5·980	2·380	27th	19	5	0	0	2	11	0	2	10	15	6	1	0	4	19	5
·238	·233	·235	87	89	88	7·6	5·5	6·6	4·070	1·400	27th	14	3	1	0	2	11	7	12	19	11	1	0	3	7	3	6
·253	·253	·253	87	88	88	8·4	5·3	6·9	5·430	1·440	4th	15	1	0	0	4	15	0	3	22	4	3	1	12	5	6	6
·264	·255	·260	90	93	91	7·3	6·0	6·7	6·440	1·263	4th	15	3	1	0	5	15	2	6	20	3	1	1	3	13	7	8
·254	·245	·250	89	91	90	7·8	5·3	6·6	5·460	1·340	27th	13	2	0	0	5	14	2	13	17	3	1	2	7	8	6	5
·240	·234	·237	89	89	89	6·8	6·3	6·6	5·515	1·842	27th	11	2	1	0	3	12	0	5	8	10	6	2	3	7	12	9
·272	·258	·265	90	92	91	8·0	6·6	7·3	4·750	1·680	4th	17	1	0	0	2	16	0	4	2	13	1	6	2	4	7	23
·270	·255	·263	89	91	90	7·3	5·3	6·3	5·500	1·210	4th	17	1	1	0	4	11	0	6	6	8	3	4	0	6	1	28
·293	·269	·281	88	92	90	8·1	6·5	7·3	4·741	·767	26th	18	2	0	0	1	17	0	5	18	8	4	3	7	3	6	8
·338	·325	·332	92	94	93	8·5	7·3	7·9	9·700	1·950	9th	20	0	0	0	2	17	1	0	19	3	0	10	6	6	3	15
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·289	·281	·285	86	90	88	6·8	5·6	6·2	4·597	·912	26th	17	1	0	1	6	15	2	5	27	6	0	1	4	7	10	2
·310	·304	·307	87	88	88	7·3	6·2	6·8	8·070	1·526	9th	20	1	0	1	3	13	4	10	10	14	1	4	2	5	14	2
·240	·227	·234	83	83	83	5·0	5·1	5·1	1·930	·390	30th	13	5	0	0	10	10	2	10	0	18	3	0	5	1	6	19
·249	·229	·239	79	84	81	—	—	—	0·802	·215	30th	9	0	0	0	—	—	2	4	11	11	1	0	0	9	11	15
·228	·232	·230	86	91	88	—	—	—	2·800	·800	30th	12	—	—	—	—	—	—	25	10	9	0	1	2	4	11	0
·265	·256	·261	95	97	96	6·3	6·2	6·3	1·380	·430	27th	13	1	0	0	7	15	4	15	11	1	0	0	6	7	1	21
·262	·251	·257	82	86	84	7·3	6·5	6·9	5·658	2·010	27th	16	2	2	1	2	14	4	6	20	8	0	0	1	7	6	14
·268	·270	·269	83	84	84	7·3	6·1	6·7	5·010	2·230	27th	13	2	1	1	2	13	10	2	3	30	4	0	7	12	4	0
·276	·272	·274	80	84	82	6·6	6·3	6·5	5·690	1·150	26th	13	1	2	4	1	12	0	5	25	14	3	0	3	2	5	5
·265	·260	·263	84	89	87	6·4	5·8	6·1	4·680	1·440	4th	13	1	1	0	5	12	0	5	14	21	1	1	2	5	1	12
·259	·250	·255	91	93	92	7·9	7·5	7·7	9·060	2·000	26th	18	3	0	0	4	19	2	1	7	20	6	0	1	10	4	13
·297	·278	·288	84	86	85	7·5	6·9	7·2	8·740	2·440	4th	16	1	1	2	5	18	8	8	18	10	1	1	9	9	4	2
·252	·243	·248	85	89	87	7·1	5·7	6·4	1·480	·500	18th	15	2	2	0	3	8	0	4	16	5	0	2	6	8	6	15
·227	·222	·225	90	91	91	7·0	5·7	6·4	0·871	·310	27th	7	0	0	0	7	15	5	8	13	0	1	0	7	2	7	24
·244	·228	·236	82	89	86	6·2	5·1	5·7	0·572	·130	18th	8	0	1	0	5	9	0	5	11	4	0	2	0	3	3	34
·256	·257	·257	84	86	85	6·1	6·1	6·1	7·358	2·736	27th	15	3	7	0	3	10	5	5	11	14	0	0	1	16	7	8
·243	·231	·237	92	91	92	6·3	5·2	5·8	2·528	·836	26th	12	1	1	0	7	11	4	16	10	2	2	1	6	0	4	21
·348	·331	·340	81	85	83	6·5	6·1	6·3	10·110	1·940	9th	20	0	2	1	4	13	5	6	14	13	3	8	7	2	2	8

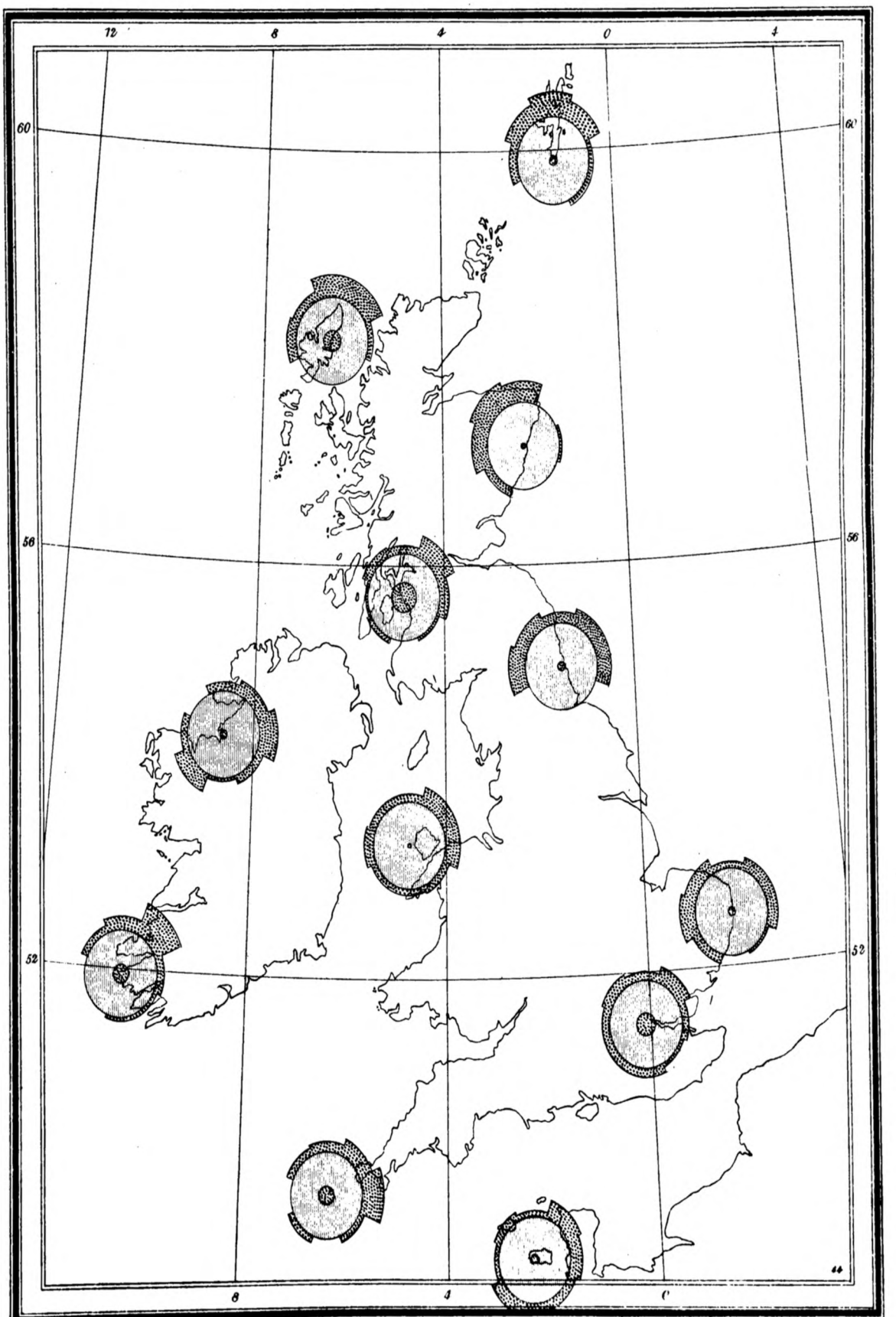
TABLE C., OCTOBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS during the Month of OCTOBER 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL.			WEATHER. No. of Days of							WIND. No. of Observations of								
			At 8 a.m.	Means of			Absolute Extremes.							Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
				Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.																						
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																
0. SCOTLAND N.	Sumburgh Head	29·896	41·6	37·3	46·7	42·0	29	19th, 26th	54	12th, 15th	·212	81	6·5	3·08	0·46	1st	28	2	0	0	0	10	0	11	7	1	1	0	0	3	7	1
	Wick	29·955	42·4	34·5	48·6	41·6	23	20th	56	1st, 9th	·245	91	7·1	3·29	0·39	25th	23	3	1	0	2	13	1	2	5	3	0	0	3	3	11	4
	Stornoway	29·997	41·1	36·5	48·3	42·4	26	20th	58	1st	·245	95	6·7	4·81	0·70	4th	24	4	3	0	2	13	8	9	9	2	0	0	0	4	3	4
1. SCOTLAND, E.	Nairn	29·984	39·9	37·1	47·0	42·1	25	21st	60	1st	·212	87	7·1	4·05	0·99	20th	24	2	4	0	3	17	3	3	3	0	1	0	2	7	4	11
	Aberdeen	29·951	41·8	38·0	49·5	43·8	25	20th	64	1st	·218	83	5·8	3·07	0·42	8th	21	7	5	0	3	8	4	9	0	1	0	0	5	7	11	0
	Leith	29·968	42·5	38·1	51·5	44·8	26	20th, 22nd	63	1st	·235	87	6·7	2·68	0·44	22nd	16	3	2	0	1	10	2	1	8	2	0	0	2	13	5	0
2. ENGLAND, N.E.	Shields	29·929	44·4	39·6	50·1	44·9	29	20th, 22nd	61	1st	·248	85	7·1	3·48	0·80	27th	22	5	5	0	3	13	6	4	6	6	0	0	0	8	6	1
	York	29·925	42·6	37·5	51·5	44·5	24	20th	63	1st	·245	88	6·5	3·82	1·48	27th	14	1	1	0	7	14	0	12	3	3	0	1	0	8	3	1
	Spurn Head	29·887	47·0	43·6	51·7	47·7	30	21st, 24th	60	1st	·262	82	6·5	3·57	1·23	27th	19	0	3	1	1	6	2	3	7	5	0	0	4	8	4	0
3. ENGLAND, E.	Yarmouth	29·869	47·4	42·9	52·4	47·7	33	25th	63	5th	·279	86	5·7	3·63	0·71	6th	19	0	0	0	4	6	8	3	5	5	1	0	3	7	6	1
	Cambridge	29·893	43·7	38·4	53·0	45·7	26	24th, 25th	66	2nd	·265	92	7·5	5·07	1·56	6th	15	2	0	0	3	18	0	6	5	1	0	1	3	4	10	1
4. MIDLAND COUNTIES.	Nottingham	29·930	43·0	37·3	51·3	44·3	25	20th, 21st 24th.	64	1st	·240	86	6·4	5·28	1·35	27th	16	1	1	0	9	15	2	11	5	0	0	0	4	3	7	1
	Oxford	29·901	43·1	39·8	52·7	46·3	30	24th	64	1st	·252	90	7·8	5·31	1·20	6th	18	0	0	0	6	22	0	6	5	1	1	3	1	6	2	6
5. ENGLAND, S.	London	29·895	45·1	40·7	53·6	47·2	28	30th	65	1st, 2nd, 5th, 7th.	·267	89	8·4	7·29	1·76	9th	22	2	0	1	4	23	4	3	6	3	1	3	3	3	4	5
	Dover	29·872	48·9	45·2	54·0	49·6	34	21st, 22nd	65	2nd	·292	85	6·0	6·40	1·39	9th	20	0	2	1	2	12	4	6	6	4	1	1	5	1	6	1
	Hurst Castle	29·875	46·7	42·4	54·7	48·6	30	21st	65	1st, 2nd	·295	93	6·5	5·33	1·22	26th	16	1	0	0	5	12	7	4	10	7	4	1	1	1	2	1
6. SCOTLAND, W.	Ardrossan	29·980	42·1	37·6	51·2	44·4	26	20th	60	1st	·232	87	5·2	0·69	0·23	27th	8	2	0	0	6	9	3	3	9	4	1	0	2	1	4	7
7. ENGLAND, N.W	*Hawes Junction	28·689	38·5	34·4	44·6	39·5	21	20th	56	1st	·217	93	7·6	5·00	1·15	27th	16	8	1	1	0	18	9	4	6	10	0	0	4	2	2	3
	Barrow-in-Furness	29·942	43·8	39·5	52·3	45·9	28	22nd	62	1st	·236	82	6·4	2·14	1·43	27th	12	1	0	0	0	9	3	4	21	1	0	0	1	2	2	0
	Liverpool	29·927	44·0	41·4	49·8	45·6	30	20th, 21st	63	1st	·244	84	6·9	4·88	1·51	26th	14	1	0	0	6	13	0	3	11	3	3	3	3	3	2	0
	Holyhead	29·935	46·9	43·9	50·7	47·3	36	20th, 21st	62	24th	·288	91	8·2	5·79	2·87	27th	17	2	3	0	0	17	7	3	7	7	3	2	2	4	3	0
8. ENGLAND, S.W.	Pembroke	29·864	46·5	43·1	52·2	47·7	34	21st	61	1st	·270	86	6·8	4·37	1·07	26th	14	1	0	0	1	9	5	4	13	6	2	1	0	2	2	1
	Prawle Point	29·863	48·4	43·2	55·1	49·2	33	21st, 30th	64	1st	·305	90	6·5	6·05	1·26	21st	17	0	0	0	1	11	10	8	7	5	2	1	2	2	4	0
9. IRELAND, N.	Donaghadee	29·979	45·8	42·6	51·5	47·1	33	22nd	59	1st	·254	83	5·5	1·62	0·61	27th	11	1	1	0	1	6	8	1	12	6	1	0	3	4	4	0
	Mullaghmore	30·010	45·6	42·4	51·5	47·0	34	21st	59	1st	·261	85	6·1	0·80	0·15	30th	11	1	½	0	9	9	10	3	5	9	3	1	7	2	0	1
10. IRELAND, S.	Valencia	29·967	45·6	40·7	54·2	47·5	31	30th	65	1st	·254	83	6·1	2·44	1·19	26th	15	0	0	0	3	8	6	5	16	3	1	1	0	0	2	3
	Roche's Point	29·934	44·8	41·3	52·8	47·1	33	21st, 30th	65	1st	·245	83	5·9	3·46	1·08	26th	11	0	0	0	0	8	7	11	10	5	1	0	0	1	3	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·851	51·4	47·8	54·4	51·1	39	22nd	63	1st	·331	87	8·3	6·75	1·57	25th	18	0	1	0	1	17	15	4	7	10	2	0	2	0	3	3
	Jersey	29·824	51·8	47·1	57·3	52·2	38	22nd	67	1st	·326	84	5·9	10·45	1·91	9th	21	0	1	1	4	8	10	2	7	5	3	3	5	2	3	1

* Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations at this station are not reduced for altitude.

MONTHLY WIND CHART FOR OCTOBER, 1880.



To face p. 132.

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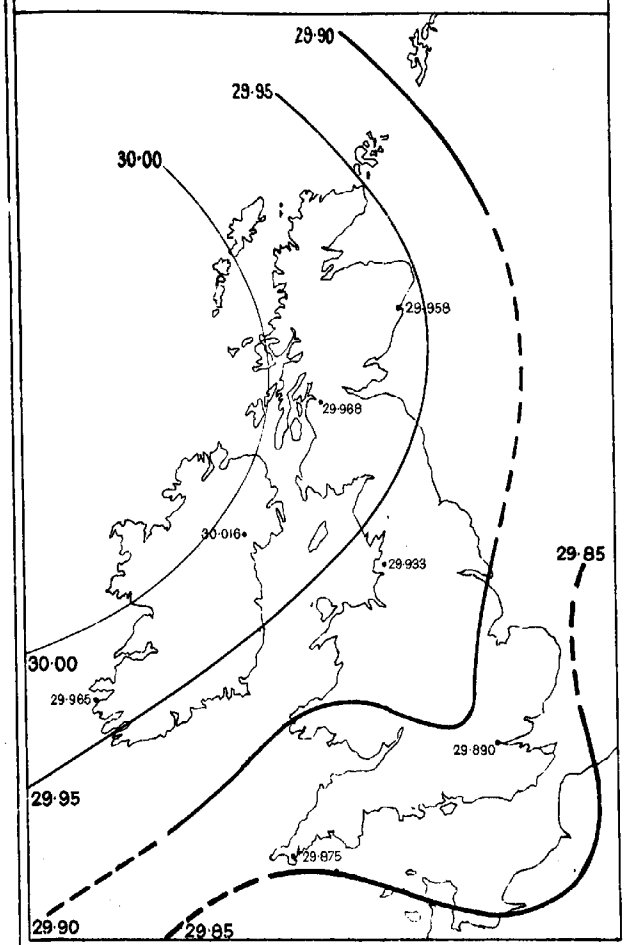
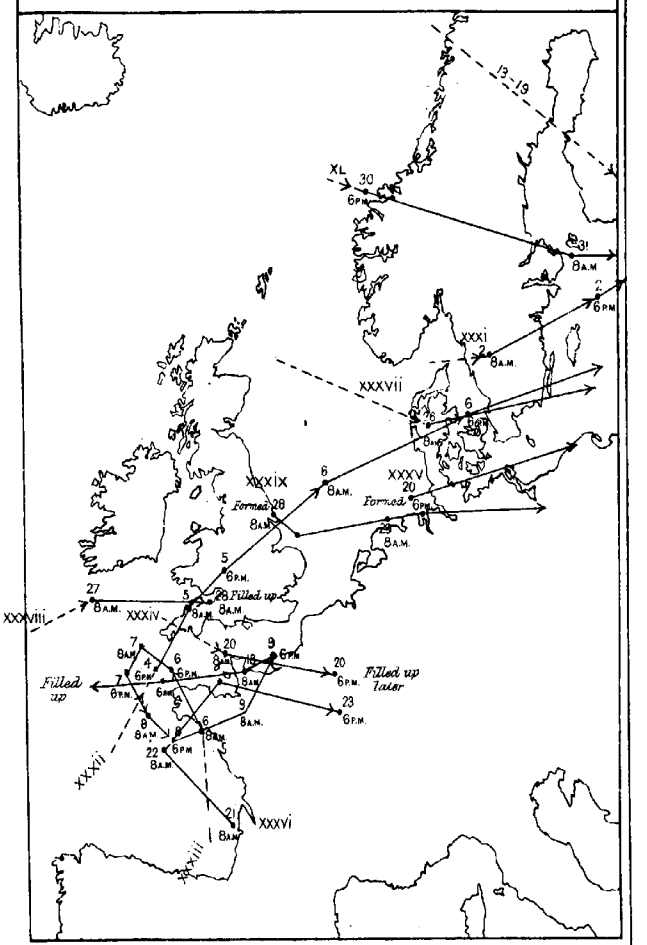
Monthly Weather Chart, October, 1880.

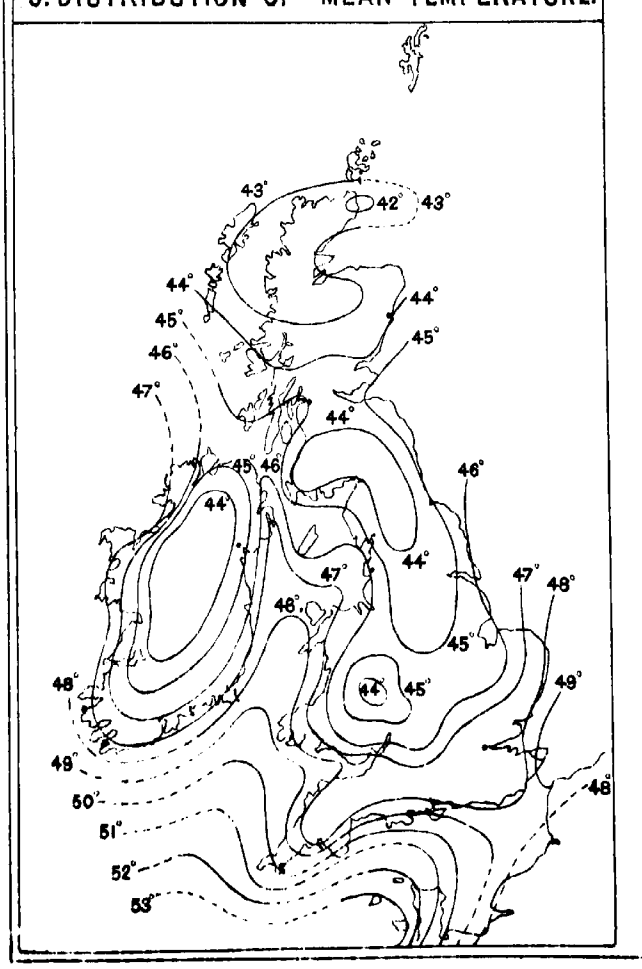
1. Distribution of Mean Pressure.



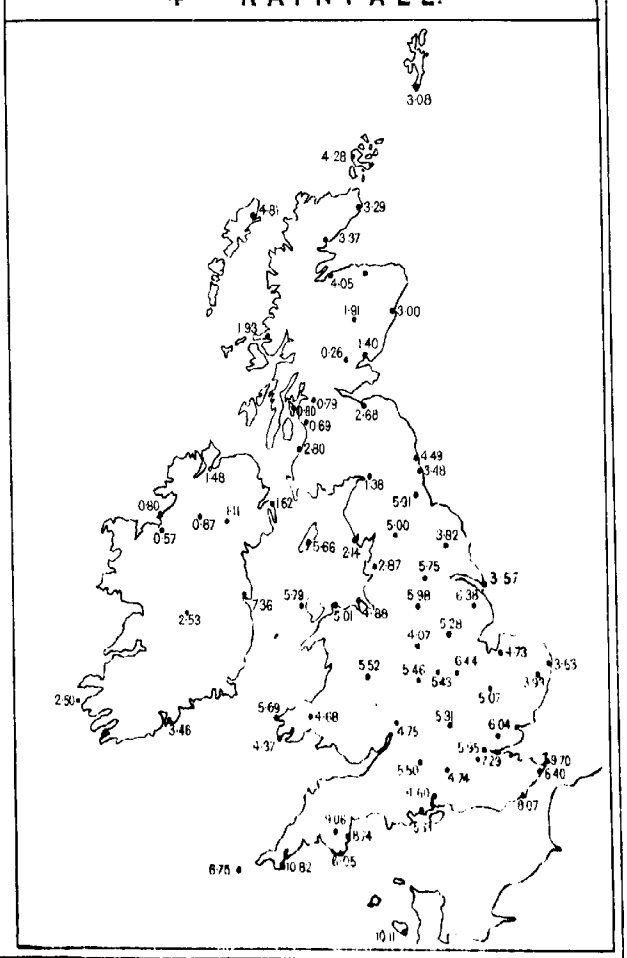
2. Movements of Depressions.



3. Distribution of Mean Temperature.



4 Rainfall.



To follow Wind Chart for October.

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REMARKS FOR NOVEMBER 1880.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—The wind chart for November shows a strong contrast to that for the preceding month. There is a very general absence of North-easterly winds, except at the southern stations, and the most prevalent direction almost everywhere is South-west. This is especially noticeable in Ireland. There were no very serious storms during the month.

Pressure.—The distribution of barometrical pressure was nearly normal, but the general gradient was steeper than usual, for the values were about 0·1 in. below the mean in the extreme north, and about half as much above it in the south of England and in Ireland. The maxima were recorded either on the 4th or the 21st, the absolute highest reading being 30·57 ins. at Valencia on the former day at 10 a.m. The minima were recorded at most stations on the 16th during the passage of depression No. XLV., the lowest reading being 28·445 ins. at Stonyhurst. The range was greatest at that observatory, exceeding 2 inches. (Table A.)

Movements of Depressions.—These offered a strong contrast to those noticed in the previous month. The paths of several passed to the north of Scotland. Two, Nos. XLIV. and XLV., crossed the centre of Ireland, and only one, No. XLVI., passed along the Channel.

Temperature.—The distribution of mean temperature was accurately normal, except that in the north of Scotland the thermometer read about 2° too low. The isotherms of 49° and 45° followed precisely their usual course, with all their sinuosities.

No very extreme temperatures were recorded except at Braemar, as will be shown below. The minima were for the most part entered on the 21st or 22nd. At most stations they were below the freezing point, and at the Scotch stations very much so. In fact at Braemar the extraordinary reading, for November, of 1°·3 was registered, and 12° or 13° at some other places. The highest readings were all registered on the 13th except in Scotland and Ireland. The north of England was most highly favoured in respect of warmth, 60° being reached at two or three stations, and even 60°·3 at Durham. Range was highest at Braemar, where it exceeded 50°. It was also very high (46°·3) at Durham. At Scilly the thermometer never fell below 38°.

Vapour Tension varied from 0·32 in. at Scilly to below 0·20 in. over the north-east of Scotland. The hills and moors of the north of England also show an area of low vapour tension, about 0·20 in.

Relative Humidity was high except on the south and west coasts and in the Shetlands, where it was only 85 per cent. Elsewhere it was generally above 90 per cent. and even reached 96 per cent. at Hawes Junction and 95 per cent. at Stornoway.

Rain was generally heavy in the west, the total of 10 inches was exceeded at Dartmoor and Hawes Junction. The lowest amounts were over the Midland and Eastern Counties, where the fall at several stations fell short of 2 inches. The absolute minimum was 1·47 in. at Oscott.

Londonderry and Sumburgh Head each reported rain for 26 days, but in several parts of the country only 12 or 13 rainy days were noted.

Bright Sunshine was seriously deficient. The highest per-centage of total duration attained was 36 at Aberdeen. This value was closely approached by Cambridge and Geldeston. Glasgow comes out worst of all, with 13 per cent.

TABLE showing the PREVALENCE of BRIGHT SUNSHINE at STATIONS in the BRITISH ISLANDS during the Month of NOVEMBER 1880.

STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.	STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.
Sandwick	43	19	Southampton†	—	—
Stornoway	45	19	Southbourne	69	26
Aberdeen	84	36	Glasgow	32	13
Glenalmond	—	—	Silloth	—	—
Durham	71	29	Douglas	76	30
York	—	—	Stonyhurst	77	31
Kelstern	—	—	Llandudno	54	21
Hillington	41	16	Pembroke	80	31
Geldeston	87	34	Falmouth	78	30
Cambridge	89	35	Markree Castle	58	23
Leicester	47	18	Armagh	58	23
Churchstoke	65	25	Dublin	76	30
Cirencester	76	30	Parsonstown	62	24
Oxford	75	29	Valencia	64	25
London*	65	25	Jersey	74	27

* The value for London is the mean of observations taken at Hampstead and Kew Observatory.
† The record at Southampton was affected by the shadow of an obstacle which fell on the card for about an hour in winter.

TABLE A., NOVEMBER.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of NOVEMBER 1880, together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).						TEMPERATURE In the Shade (In Degrees Fahrenheit).						HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.				Range.	Mean for the Month.	Extremes.				Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
		Minimum.		Maximum.				Minimum.		Maximum.					
		Reading.	Date.	Reading.	Date.			Reading.	Date.	Reading.	Date.				
	ins.	ins.	D. H.	ins.	D. H.	ins.	°	°	D. H.	°	D. H.	°	in.	%	ins.
Valencia	29·874	28·711	16th, 1 a.m.	30·572	4th, 10 a.m.	1·861	47·6	29·7	20th, 7 a.m.	56·4	13th, 4 a.m. } 9 a.m. }	26·7	·275	84	6·084
Armagh	·849	·724	16th, 7 a.m.	·531	3rd, 9 p.m.	1·807	42·5	24·0	20th, 8 a.m.	56·1	13th, Noon	32·1	·234	86	3·272
Glasgow	·790	·717	16th, 11 a.m.	·445	3rd, 6 p.m. } 21st, 2 a.m. }	1·728	39·5	15·2	20th, 10 a.m.	54·3	13th, 8 a.m.	39·1	·207	86	5·512
Aberdeen	·754	·760	26th, 1 p.m.	·456	21st, 4 a.m.	1·696	39·7	14·2	21st, 6 a.m.	54·4	6th, 1 p.m.	40·2	·194	79	2·475
Falmouth	·990	·771	18th, 3 p.m.	·502	4th, 11 a.m.	1·731	47·5	34·3	20th, 9 a.m.	56·7	14th, Noon	22·4	·269	82	6·100
Stonyhurst	·886	·445	16th, 1 p.m.	·527	21st, 4 a.m. } 5 a.m. }	2·082	41·0	21·0	22nd, 9 a.m.	55·0	13th, 10 a.m.	34·0	·217	85	7·294
Kew	29·977	28·737	16th, 2 p.m.	30·494	21st, 5 a.m.	1·757	42·7	25·2	22nd, 8 a.m.	57·5	13th, Noon	32·3	·229	84	1·785

TABLE B., NOVEMBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.								
						Means of			Absolute Extremes.			
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·661	40·8	40·0	40·4	36·4	44·3	40·4	27·0	15th	53·1	6th
	Dunrobin Castle S	29·722	39·8	38·7	39·3	33·3	45·5	39·4	21·5	15th, 21st	55·5	6th
1. SCOTLAND, E.	Braemar S	29·760	34·6	34·6	34·6	29·2	42·5	35·9	1·3	20th	51·4	6th
	Dundee S	29·778	37·2	37·8	37·5	32·6	43·6	38·1	17·2	21st	53·7	6th
	Glenalmond	29·794	37·0	36·5	36·8	29·7	44·2	37·0	12·0	23rd	55·3	13th
2. ENGLAND, N.E.	Seaham	29·828	42·4	40·9	41·7	35·5	47·2	41·4	23·3	23rd	58·7	13th
	Durham*	29·837	42·8	38·4	40·6	32·1	46·7	39·4	13·5	21st	60·3	13th
	York	29·885	39·7	40·7	40·2	35·3	47·9	41·6	19·0	21st	59·0	13th
	Hull	29·892	41·4	40·9	41·2	36·3	46·9	41·6	25·5	21st	58·9	13th
	Kelstern	29·916	40·3	39·2	39·8	34·3	46·8	40·6	22·2	22nd, 23rd	57·7	13th
3. ENGLAND, E.	Hillington	29·920	41·8	39·8	40·8	34·9	48·0	41·5	21·5	22nd	58·2	13th
	Geldeston	29·937	42·4	41·8	42·1	36·8	48·6	42·7	26·9	23rd	58·4	13th
	Chigwell Row	30·006	42·4	41·2	41·8	36·2	48·8	42·5	25·3	22nd	57·0	13th
4. MIDLAND COUNTIES.	Wakefield	29·895	41·8	41·3	41·6	35·3	48·3	41·8	20·9	22nd	59·4	13th, 14th
	Buxton	29·951	38·5	38·7	38·6	32·0	45·3	38·7	12·4	22nd	56·2	13th
	Cheadle	29·925	39·6	39·8	39·7	34·8	46·6	40·7	21·4	22nd	56·4	13th
	Leicester	29·939	40·7	41·0	40·9	34·8	48·3	41·6	13·3	22nd	61·0	13th
	Uppingham	29·938	40·2	39·6	39·9	34·9	46·6	40·8	20·6	22nd	56·1	13th
	Oscott	29·958	39·9	40·3	40·1	35·1	48·0	41·6	17·4	22nd	58·5	13th
	Churchstoke	29·949	39·6	40·6	40·1	34·3	47·6	41·0	16·1	18th	56·8	13th
	Cheltenham	—	41·1	41·0	41·1	34·8	47·4	41·1	18·8	22nd	57·2	14th
5. ENGLAND, S.	Marlborough	29·992	40·1	40·3	40·2	35·4	47·6	41·5	15·8	22nd	56·7	13th
	Strathfield Turgiss	29·989	40·1	40·7	41·4	34·7	48·8	41·8	21·5	22nd	57·1	13th
	Ramsgate	29·993	43·5	43·2	43·4	36·8	48·7	42·8	27·5	22nd	55·7	13th
	Folkestone	—	—	—	—	—	—	—	—	—	—	—
	Southampton	29·999	43·0	43·2	43·1	38·1	49·3	43·7	22·3	22nd	56·7	14th
	St. Leonards	29·998	44·2	43·8	44·0	39·7	49·1	44·4	29·8	21st	54·7	14th
6. SCOTLAND, W.	Laudale	29·755	41·9	43·0	42·5	36·2	46·0	41·1	21·1	20th	55·2	6th
	Rothesay S	29·813	40·9	40·4	40·7	35·3	46·7	41·0	22·2	20th	55·0	13th
	Pinmore S	29·825	38·2	40·1	39·2	32·8	48·3	40·6	15·5	20th	55·1	13th
7. ENGLAND, N.W.	Scaleby	29·836	38·5	39·3	38·9	32·7	46·0	39·4	16·0	20th	57·2	13th
	Douglas (Isle of Man)	29·850	44·4	43·5	44·0	38·1	48·8	43·5	25·3	4th	56·5	13th
	Llandudno	29·885	44·7	44·5	44·6	38·6	49·1	43·9	25·7	22nd	57·3	13th
8. ENGLAND, S.W.	St. David's	29·931	45·1	45·8	45·5	41·5	49·1	45·3	29·5	20th	54·3	13th
	Caermarthen	29·943	42·7	43·4	43·1	38·2	49·8	44·0	22·7	22nd	55·7	13th
	Dartmoor	29·997	39·9	40·0	40·0	35·3	44·3	39·8	21·0	21st	51·7	26th
	Babbacombe	29·985	45·3	44·4	44·9	40·4	50·2	45·3	29·7	22nd	57·6	12th
9. IRELAND, N.	Londonderry	29·811	41·3	42·2	41·8	36·2	47·4	41·8	17·6	20th	56·0	13th
	Brookeborough	29·829	38·8	41·6	40·2	34·3	47·1	40·7	15·8	20th	56·1	13th
	Markree Castle	29·820	41·3	41·8	41·6	35·0	48·4	41·7	18·3	19th	57·4	13th
10. IRELAND, S.	Dublin	29·880	43·8	44·4	44·1	39·4	49·2	44·3	28·8	18th	59·3	13th
	Parsonstown	29·884	41·6	42·2	41·9	36·4	49·2	42·8	21·9	19th	58·0	13th
CHANNEL	Jersey (St. Aubin's)	30·062	48·0	47·5	47·8	43·9	51·4	47·7	32·2	23rd	57·0	10th, 14th

NOTE.—The stations marked are in connexion with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS, during the Month of NOVEMBER 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER. No. of Days of							WIND. No. of observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·216	·213	·215	85	86	86	6·2	6·8	6·5	4·280	·620	12th	25	6	0	1	4	11	12	9	4	1	3	10	9	15	6	3
·214	·212	·213	84	88	86	—	—	—	3·060	·800	30th	20	4	0	0	—	—	1	6	2	3	3	3	6	13	24	0
·193	·191	·192	92	91	92	5·2	6·2	5·7	4·420	1·030	26th	19	6	0	0	5	4	5	9	4	5	0	3	24	14	1	0
·197	·201	·199	84	85	84	7·0	6·8	6·9	3·000	·550	13th	14	4	0	0	3	14	8	3	6	1	3	0	12	22	13	0
·193	·192	·193	82	85	82	5·8	5·0	5·4	4·703	·824	24th	17	6	0	0	4	9	2	5	1	1	0	1	16	12	1	23
·233	·229	·231	86	90	88	5·2	4·4	4·8	1·950	·390	15th	16	7	4	0	6	3	1	3	3	1	1	9	21	12	8	2
·240	·220	·230	84	89	87	5·0	3·9	4·5	2·242	·438	16th	13	6	2	0	8	7	1	5	5	0	0	14	19	6	9	2
·214	·220	·217	88	87	88	5·3	4·0	4·7	2·330	·610	17th	16	7	0	0	7	4	1	14	1	2	0	15	8	16	4	0
·230	·231	·231	89	91	90	5·7	4·4	5·1	1·980	·480	17th	16	0	0	0	7	8	0	6	3	2	0	1	15	15	7	11
·231	·227	·229	89	92	90	5·7	4·6	5·2	3·478	·900	14th	20	8	0	0	6	7	0	4	7	0	1	4	20	8	16	0
·247	·232	·240	90	91	91	7·7	6·2	7·0	2·647	·880	14th	17	5	2	0	3	16	2	2	2	4	5	1	27	11	8	0
·245	·237	·241	88	87	87	6·6	4·7	5·7	2·000	·550	15th	20	3	3	0	6	11	5	3	7	3	0	2	24	13	8	0
·249	·239	·244	92	92	92	6·7	5·4	6·1	1·920	·530	15th, 18th	12	2	0	0	5	14	0	9	10	1	2	0	16	9	5	8
·234	·229	·232	83	84	84	6·8	6·6	6·7	1·960	·630	17th	16	0	0	0	2	12	1	6	1	0	3	7	13	21	9	0
·218	·214	·216	89	87	88	7·0	7·0	7·0	5·830	1·270	13th	18	9	0	0	1	12	0	3	9	2	2	0	3	18	18	5
·217	·220	·219	89	90	90	5·9	5·4	5·7	3·010	1·220	14th	19	6	0	0	6	10	8	5	6	3	1	6	15	6	11	7
·224	·227	·226	88	89	89	7·3	6·0	6·7	1·690	·470	15th	14	2	0	0	5	13	2	2	11	0	2	3	28	3	5	6
·228	·225	·227	88	89	88	6·8	6·4	6·6	2·112	·599	14th	15	4	0	0	2	15	9	9	4	1	0	8	20	9	6	3
·229	·232	·231	89	90	89	7·0	6·9	7·0	1·470	·390	15th	13	5	1	0	3	15	6	8	6	0	1	14	17	8	5	1
·219	·230	·225	86	86	86	6·0	5·8	5·9	3·101	·963	15th	15	3	1	0	4	9	2	5	6	3	2	1	7	27	6	3
·240	·238	·239	89	89	89	7·0	5·7	6·4	2·980	·930	15th	16	1	0	0	5	12	1	5	1	1	1	7	11	13	5	16
·237	·234	·236	91	90	91	7·9	5·7	6·8	3·250	·700	18th	15	3	0	0	2	13	0	3	1	1	0	1	7	11	3	33
·244	·233	·239	88	88	88	6·8	5·7	6·3	2·212	·444	14th	15	2	0	0	5	14	0	7	14	0	1	1	16	14	3	4
·269	·264	·267	93	93	93	7·1	5·4	6·3	4·130	1·450	18th	15	2	2	0	4	11	5	2	0	4	0	15	10	5	13	11
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·260	·257	·259	90	88	89	7·4	6·4	6·9	2·516	·464	15th	12	2	0	0	5	16	3	4	12	0	2	3	24	6	8	1
·260	·256	·258	88	87	87	6·6	5·9	6·3	4·776	2·188	18th	20	1	2	1	4	12	8	10	7	3	0	4	16	12	8	0
·228	·239	·234	82	84	83	7·1	7·6	7·4	0·640	1·030	24th	19	10	1	0	3	18	4	5	4	8	6	3	17	9	3	5
·229	·224	·227	84	84	84	—	—	—	5·893	·685	13th	21	1	0	0	—	—	4	2	6	4	4	5	13	9	10	7
·220	·229	·225	91	88	90	—	—	—	5·660	1·090	13th	22	—	—	—	—	—	—	17	0	0	0	8	14	11	10	0
·222	·220	·221	90	87	88	6·6	5·8	6·2	3·640	·480	13th	19	2	1	1	6	13	10	1	3	7	1	1	30	3	0	14
·261	·258	·260	86	88	87	6·5	6·6	6·6	5·117	·700	13th	19	2	2	0	2	12	9	5	6	0	5	7	17	6	7	7
·248	·250	·249	82	83	82	6·5	5·6	6·1	4·280	·700	16th	16	1	3	2	6	13	3	0	3	6	3	10	7	25	6	0
·260	·270	·265	83	84	84	7·0	7·0	7·0	4·222	·946	15th	18	0	1	1	3	13	7	2	14	2	3	4	21	10	4	0
·252	·266	·259	87	91	89	5·9	7·1	6·5	4·720	·710	13th	18	2	0	0	6	13	4	7	0	8	1	2	24	3	3	13
·238	·242	·240	93	94	94	7·8	7·3	7·6	10·780	1·390	23rd	18	2	0	0	5	20	1	4	3	14	0	2	15	15	6	1
·269	·263	·266	87	88	87	7·3	6·4	6·9	3·850	·780	25th	15	2	2	0	5	13	6	7	7	5	0	7	23	6	4	1
·237	·243	·240	87	87	87	7·8	6·4	7·1	4·850	1·430	13th	26	4	0	0	1	12	1	5	3	1	6	10	16	12	2	5
·217	·238	·228	92	91	92	8·3	7·4	7·9	5·733	1·310	13th	19	2	0	0	3	20	10	4	3	4	3	8	19	2	6	11
·245	·243	·244	90	88	89	8·0	7·5	7·8	4·576	·860	13th	23	2	0	0	4	18	0	1	3	1	6	3	15	6	3	22
·248	·253	·251	84	83	84	6·5	6·5	6·5	3·235	·670	15th	20	4	4	2	0	10	4	3	2	2	2	5	18	19	6	3
·247	·255	·251	90	91	90	7·1	6·5	6·8	3·587	·512	13th	19	1	0	0	2	13	2	2	3	4	6	10	14	5	3	13
·282	·277	·280	83	82	83	7·1	6·3	6·7	3·687	·850	16th	20	0	0	0	3	13	4	2	11	5	3	9	13	10	3	4

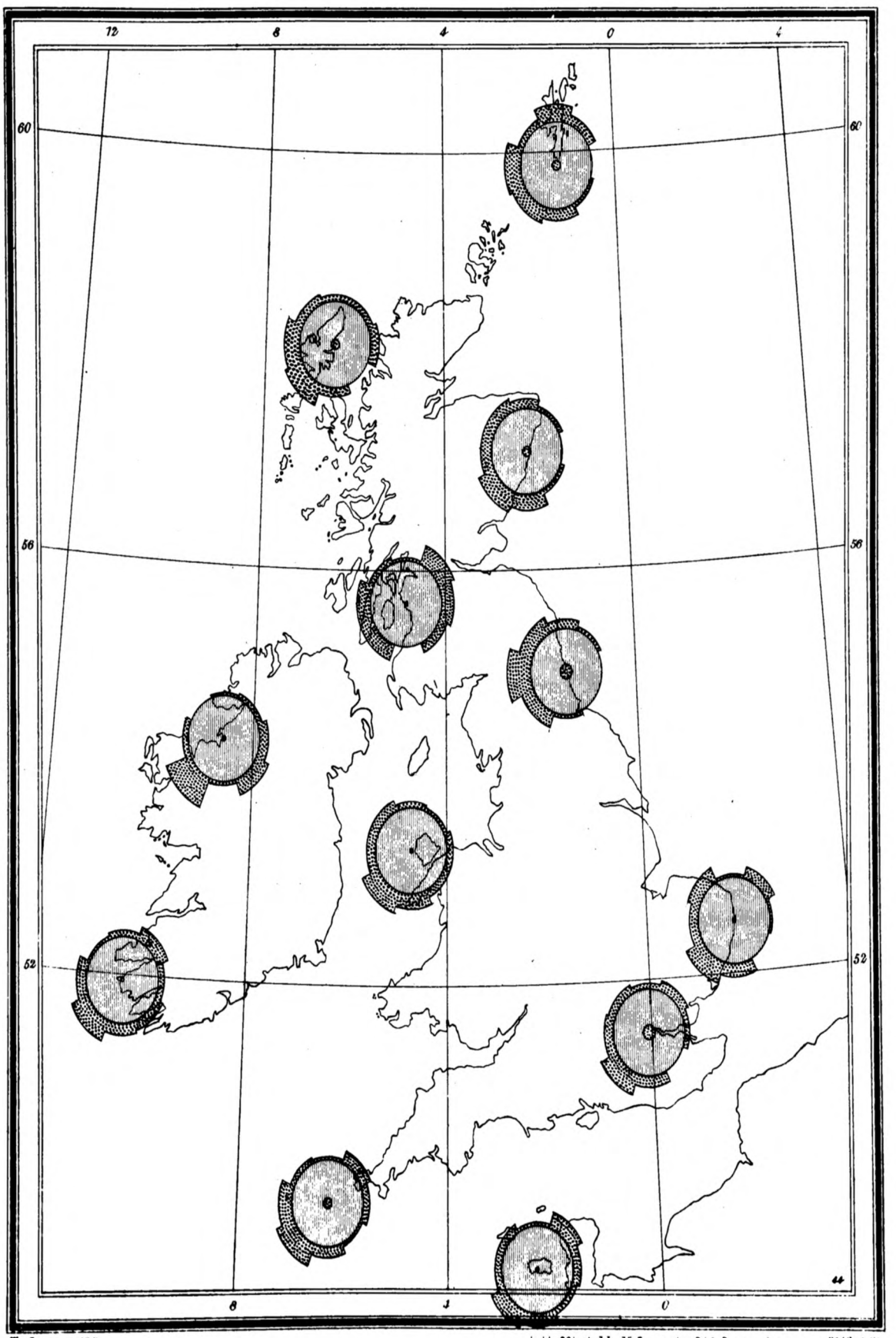
TABLE C., NOVEMBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS, during the Month of NOVEMBER 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

Names of Districts.	Names of Stations.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Air Temperature. At 8 a.m.	Means of Minima.	Means of Maxima.	Means of Min. and Max. combined.	Absolute Extremes. Minimum.	Absolute Extremes. Date.	Absolute Extremes. Maximum.	Absolute Extremes. Date.	Tension of Vapour.	Relative Humidity.	Amount of Cloud (0 to 10).	Rainfall. Total Fall in the Month.	Rainfall. Maximum Fall in One Day.	Rainfall. Date.	Weather. No. of Days of Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	Wind. No. of Observations of North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																	
	Sumburgh Head	29·635	39·7	35·4	44·0	39·7	25	1st, 19th, 20th.	52	6th	0·208	85	7·9	3·46	0·49	12th	26	5	0	0	0	15	12	6	3	0	1	4	6	7	2	1
0. SCOTLAND, N.	Wick	29·680	39·2	32·4	44·7	38·6	20	20th	54	6th	·210	88	7·8	3·02	0·74	30th	21	3	2	0	4	18	10	3	0	1	1	5	6	5	8	1
	Stornoway	29·652	40·1	34·9	44·9	39·9	20	20th	54	6th, 11th	·236	95	6·4	5·50	0·72	24th	25	3	0	1	1	6	17	2	2	3	0	3	9	7	3	1
	Nairn	29·705	38·0	33·0	44·0	38·5	18	20th	55	6th	·197	86	4·9	3·80	0·64	16th	19	4	0	0	9	9	7	0	2	2	0	0	7	9	4	6
1. SCOTLAND, E.	Aberdeen	29·733	38·1	33·4	46·1	39·8	15	21st	56	6th, 11th	·196	85	5·0	2·58	0·43	12th	21	8	2	0	5	7	7	3	1	0	1	6	8	5	5	1
	Leith	29·772	40·8	34·6	47·6	41·1	21	21st, 23rd	57	12th, 13th	·212	84	5·6	2·63	0·47	13th, 16th	18	4	0	0	3	9	10	2	2	2	0	1	7	12	3	1
	Shields	29·815	40·3	35·4	47·6	41·5	20	21st, 22nd	60	25th. 13th	·223	90	7·1	2·08	0·42	15th	19	6	4	0	4	15	8	3	1	0	0	1	6	11	6	2
2. ENGLAND, N.E.	York	29·871	39·0	34·1	48·2	41·2	19	21st, 22nd	59	13th	·212	90	5·6	2·33	0·61	17th	16	3	0	0	11	12	1	7	0	0	0	10	4	7	2	0
	Spurn Head	29·868	42·9	38·4	47·8	43·1	29	23rd	58	13th	·239	87	6·3	1·72	0·55	14th	21	0	3	0	0	8	5	3	4	0	0	3	10	7	3	0
	Yarmouth	29·919	42·4	37·3	47·3	42·3	28	23rd	58	13th	·241	89	5·7	1·75	0·55	15th	17	2	2	0	9	9	3	1	4	1	0	5	9	4	6	0
3. ENGLAND, E.	Cambridge	29·938	39·7	33·5	49·4	41·5	22	22nd	59	13th, 25th	·228	93	7·0	1·77	0·56	15th	14	0	0	0	3	15	0	5	2	0	0	4	12	0	7	0
	Nottingham	29·923	39·9	33·7	47·8	40·8	20	23rd	60	13th	·218	89	6·5	1·94	0·77	14th	15	2	0	0	7	15	2	5	0	0	0	7	8	4	3	3
4. MIDLAND COUNTIES.	Oxford	29·967	40·5	35·8	49·0	42·4	21	22nd, 23rd	58	14th	·224	90	6·4	2·02	0·59	15th	15	1	0	0	9	15	5	7	1	0	1	7	6	3	2	3
	London	29·973	41·4	36·4	49·7	43·1	25	18th, 23rd	58	13th	·233	90	6·1	1·94	0·53	18th	12	2	1	1	9	13	7	2	4	2	0	4	9	4	3	2
5. ENGLAND, S.	Dover	29·975	44·0	39·6	48·3	44·0	31	23rd	56	15th	·265	92	5·4	3·54	1·25	18th	17	2	2	0	1	7	5	6	2	3	0	0	7	7	5	0
	Hurst Castle	29·984	43·6	39·7	49·4	44·6	25	22nd	55	13th, 14th, 25th, 26th.	·266	93	6·2	2·83	0·97	18th	15	1	0	0	4	10	8	1	7	2	1	1	4	10	4	0
6. SCOTLAND, W.	Ardrossan	29·789	40·5	35·7	46·7	41·2	21	20th	54	12th, 13th	·226	90	6·4	4·93	0·75	13th	22	3	0	0	2	13	8	1	7	5	3	0	6	6	2	0
	*Hawes Junction	28·602	35·9	31·1	41·5	36·3	18	21st, 23rd	51	13th	·201	96	6·7	10·62	2·47	13th	23	7	2	1	5	18	9	5	1	5	0	4	5	7	2	1
7. ENGLAND, N.W.	Barrow-in-Furness	29·858	—	36·4	48·3	42·4	25	23rd	56	10th	·226	89	5·9	4·27	0·60	28th	18	1	0	0	6	13	5	2	9	2	2	2	10	1	2	0
	Liverpool	29·876	41·5	38·0	47·4	42·7	22	22nd, 23rd	59	13th	·218	84	6·7	3·02	0·45	17th	16	0	0	0	7	14	0	3	2	2	5	3	9	4	2	0
	Holyhead	29·869	44·6	41·3	48·6	45·0	29	21st, 22nd	55	13th, 14th	·282	96	6·0	4·70	0·62	28th	20	1	3	0	5	8	7	2	1	2	2	6	9	4	4	0
	Pembroke	29·915	46·1	42·3	49·8	46·1	32	18th, 19th, 20th.	55	13th	·264	85	7·4	3·82	0·90	15th	19	0	0	0	0	14	13	3	4	4	1	2	6	8	2	0
8. ENGLAND, S.W.	Prawle Point	29·978	45·5	40·7	51·3	46·0	30	22nd	56	5th, 14th	·286	94	7·4	3·20	1·03	18th	19	0	0	0	0	13	8	4	5	2	1	3	9	3	3	0
	Donaghadee	29·811	43·1	38·6	48·8	43·7	28	21st	58	13th	·241	86	6·1	3·93	1·05	16th	18	0	1	0	1	9	9	1	4	3	2	1	14	4	1	0
9. IRELAND, N.	Mullaghmore	29·769	44·0	39·7	49·2	44·5	30	19th	55	11th, 12th, 13th.	·250	86	7·5	6·16	1·18	13th	24	3	2	0	6	18	17	1	2	4	6	1	14	2	0	0
	Valencia	29·877	46·2	41·7	52·7	47·2	28	20th	58	2nd, 12th	·261	84	7·3	6·40	1·06	15th	21	0	0	1	2	15	12	2	5	2	3	4	8	5	1	0
10. IRELAND, S.	Roche's Point	29·898	45·1	40·0	50·9	45·5	28	18th	57	7th, 14th	·259	86	6·6	7·18	1·15	15th	19	1	0	1	0	10	10	3	3	1	1	2	9	8	3	0
	Scilly (St. Mary's)	29·966	49·8	46·1	52·1	49·1	38	21st	58	13th	·325	91	8·5	3·67	0·61	2nd	22	0	1	0	0	16	14	1	5	2	1	3	9	6	2	1
CHANNEL ISLANDS	Jersey	29·998	47·1	43·5	50·5	47·0	32	23rd	57	14th	·279	86	6·9	3·67	0·70	18th	19	0	0	0	1	11	11	1	6	3	2	5	7	3	3	0

* Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations are not reduced for altitude.

Monthly Wind Chart for November, 1880.

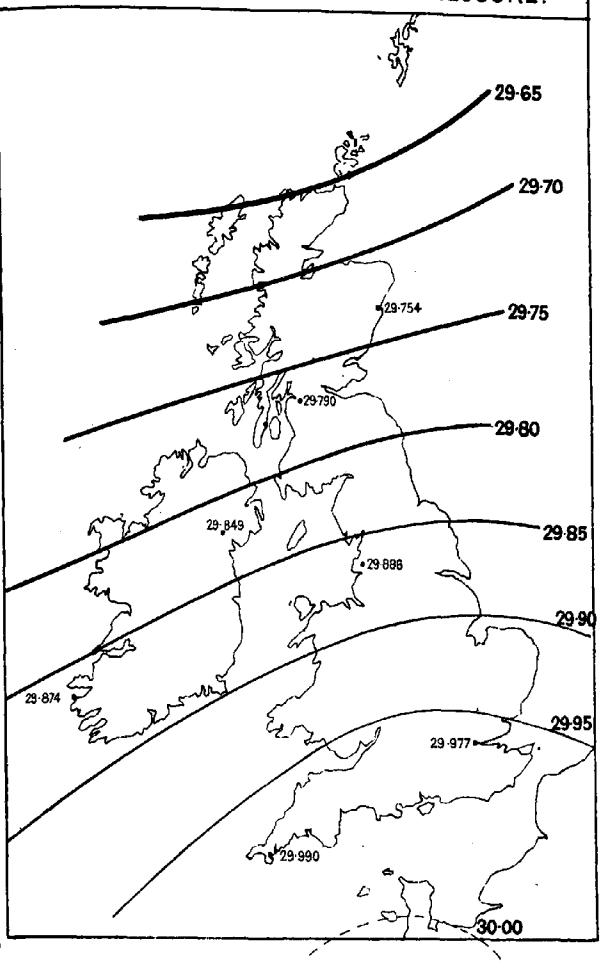


To face p 138

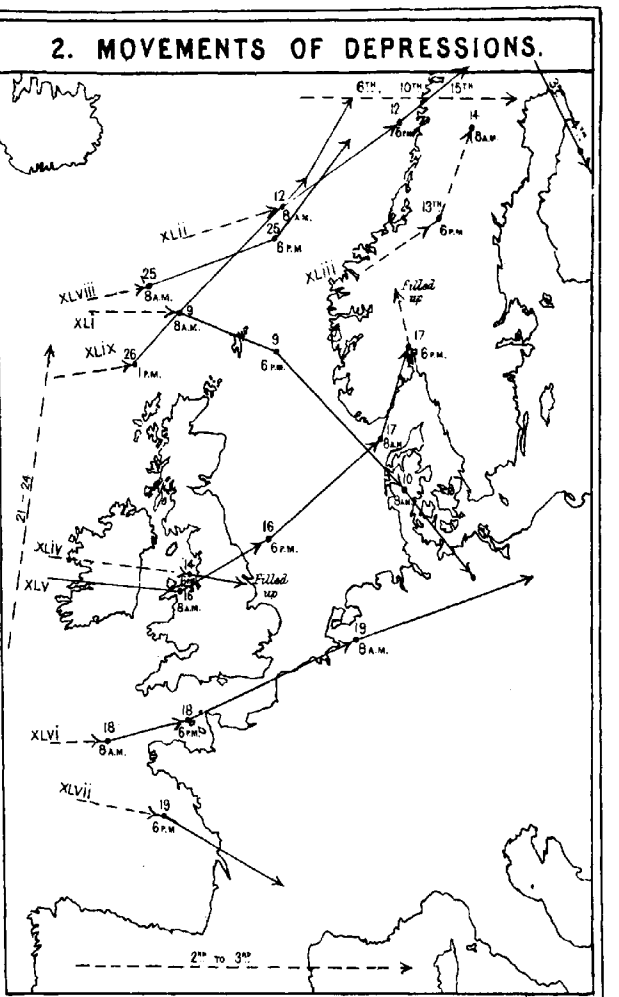
Judd & Co Lith. 73 & 75, Farringdon Rd & Doctors Commons 2142 4 91

Monthly Weather Chart, November, 1880.

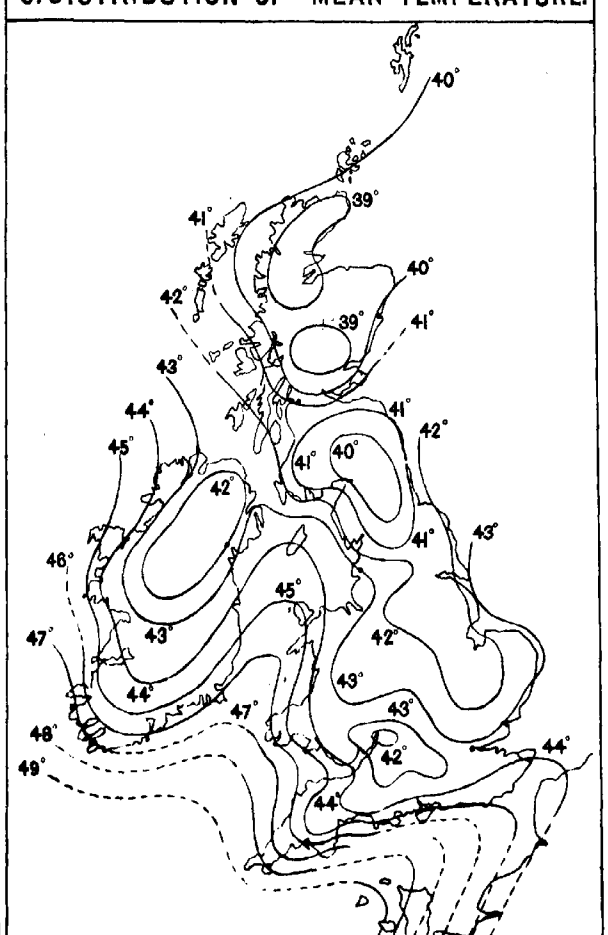
1. Distribution of Mean Pressure.



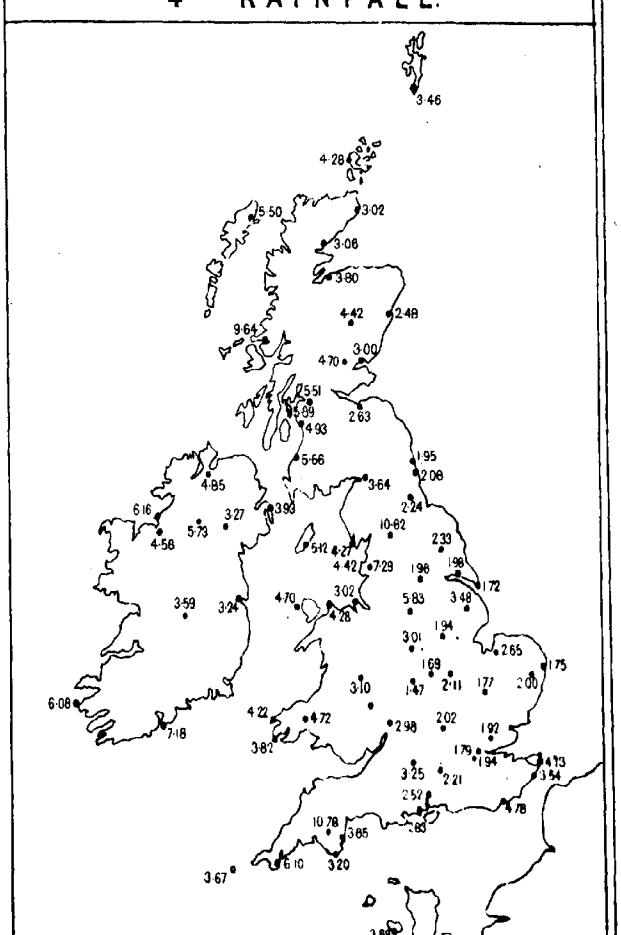
2. Movements of Depressions.



3. Distribution of Mean Temperature.



4 Rainfall.



To follow Wind Chart for November.

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REMARKS FOR DECEMBER.

(*Tables A. to C., with Monthly Wind and Weather Charts.*)

Wind.—The wind chart shows that, except in the extreme north, the maxima of frequency fell upon Western points. At Sumburgh Head the maximum was at North, and at the other Scotch stations it lay between North and North-west; elsewhere it was either at West or South-west. There was a comparative deficiency of Easterly winds.

Pressure.—The distribution of mean pressure during the month was fairly normal, but as the values in the extreme north were about 0·15 in. below their value for the period 1861–80, while those in the south were a shade above their values for the same period, the general gradient for Westerly winds was steeper than usual. Range was very uniform; it was greatest, 1·728 ins., at Stonyhurst, and least, 1·486 ins., at the comparatively adjacent station of Armagh. The minima were recorded in Scotland on the 19th, in Ireland on the 23rd, and in England on the 29th. The absolute lowest reading was 28·713 ins. at Aberdeen.

Movements of Depressions.—These were somewhat remarkable. The tracks of no less than four, Nos. L., LIV., LVI., and LX., intersected over the Hardanger Fjörd in Norway, the systems having possibly been attracted by the condensation caused by the Folgefond icefield. Two of the tracks, Nos. LV. and LX., showed remarkable changes of direction about the entrance of the Channel.

Temperature.—This was exactly normal over Ireland. It was about 2° below the mean in Scotland, normal in North England, and about 2° or 3° above the mean in South England. Range was greatest in Scotland, being as much as 53°·2 at Braemar (where the very low reading of − 0°·5 was recorded on the 27th), and 44° at Wick. It was least, 18°·0, at Scilly. The maxima were, with one or two exceptions, entered early in the month, the minima at various dates, but generally towards its close. No severe frost was felt except at some of the elevated stations.

Vapour Tension varied from below 0·18 in. in Aberdeenshire, to 0·335 in. at Scilly. *Relative Humidity* showed a very irregular distribution, the absolutely lowest value being 84 per cent. at Aberdeen and Dundee, and the highest, 97, at Hawes Junction, with 95 at Scilly and Dartmoor.

Rainfall was heaviest at Dartmoor, 10·46 ins.; Stonyhurst came next with 9·17 ins. It was decidedly least on the east coast of England, where Spurn Head had only 1·71 ins., Geldeston 1·97 ins., and Yarmouth 2·00 ins. The greatest number of rainy days, 27, was entered at Sumburgh Head, and several other places had 25 or 26. The least number, 12, was registered at Dundee and Barnstaple, stations widely separated from each other.

Sunshine.—The record is very poor, the highest per-centage being only 25 at Dublin and Durham. Few of the other stations exceed 20, and Sandwick only reaches 7 per cent.

TABLE showing the PREVALENCE of BRIGHT SUNSHINE at STATIONS in the BRITISH ISLANDS during the Month of DECEMBER 1880.

STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.	STATIONS.	Numbers of Hours recorded.	Per-centages of possible Duration.
Sandwick	13	7	Southampton†	—	—
Stornoway	21	11	Southbourne	34	14
Aberdeen	45	22	Glasgow	22	11
Glenalmond	—	—	Silloth	—	—
Durham	55	25	Douglas	51	23
York	45	20	Stonyhurst	40	18
Kelstern	—	—	Llandudno	28	12
Hillington	40	18	Pembroke	36	15
Geldeston	52	22	Falmouth‡	—	—
Cambridge	45	19	Markree Castle	36	16
Leicester	29	13	Armagh	53	24
Churchstoke	39	17	Dublin	56	25
Cirencester	42	18	Parsonstown	51	22
Oxford	38	16	Valencia	35	15
London*	31	13	Jersey	31	12

* The value for London is the mean of observations taken at Hampstead and Kew Observatory.
† The record at Southampton was affected by the shadow of an obstacle which fell on the card for about an hour in winter.
‡ At Falmouth the instrument was imperfectly adjusted and part of the record was lost.

TABLE A., DECEMBER.—SHOWING the MEAN and EXTREME PRESSURES and TEMPERATURES recorded at each of the SEVEN SELF-RECORDING OBSERVATORIES of the METEOROLOGICAL OFFICE during the Month of DECEMBER 1880; together with the MONTHLY VAPOUR TENSION, the RELATIVE HUMIDITY, and TOTAL RAINFALL.

NAMES OF OBSERVATORIES.	PRESSURE at 32° F. and the Mean Sea Level (In English Inches).							TEMPERATURE In the Shade (In Degrees Fahrenheit).							HYGROMETRIC VALUES.		RAINFALL (In English Inches).
	Mean for the Month.	Extremes.				Range.	Mean for the Month.	Extremes.				Range.	Tension of Vapour (In English Inches).	Relative Humidity (Saturation = 100).	
		Minimum.		Maximum.				Minimum.		Maximum.					
		Reading.	Date.	Reading.	Date.			Reading.	Date.	Reading.	Date.				
	ins.	ins.	D. H.	ins.	D. H.	ins.	°	°	D. H.	°	D. H.	°	in.	%	ins.
Valencia - -	29·931	29·092	23rd, 9 p.m.	30·657	9th, 11 a.m.	1·565	46·5	33·4	17th, 5 a.m.	54·4	5th, 2 p.m.	21·0	·272	86	5·322
Armagh - -	·866	29·067	23rd, 11 p.m. Midt.	·553	6th, Midt.	1·486	40·3	26·7	27th, 1 a.m.	54·0	6th, 3 a.m.	27·3	·223	90	2·483
Glasgow - -	·764	28·813	19th, 5 a.m.	·496	7th, 2 a.m.	1·683	38·5	15·5	17th, 9 a.m.	52·5	6th 9 a.m.	37·0	·201	87	4·091
Aberdeen - -	29·706	28·713	19th, 7 a.m.	·431	6th, Midt. 7th, 1 a.m.	1·718	36·6	16·0	27th, 9 a.m. 6 p.m. 7 p.m.	54·2	6th, 11 a.m.	38·2	·180	83	4·340
Falmouth - -	30·001	29·081	29th, 1 p.m.	·696	8th, 10 a.m.	1·615	47·9	36·4	18th, 2 a.m.	54·0	5th, 2 p.m.	17·6	·286	87	7·685
Stonyhurst - -	29·847	28·856	29th, 8 p.m.	·584	7th, 11 a.m.	1·728	39·8	27·1	31st, 9 a.m.	50·3	6th, Noon 7th, 11 a.m.	23·2	·217	89	9·172
Kew - -	29·940	29·071	29th, 8 p.m.	30·680	7th, 11 p.m.	1·609	43·3	26·0	22nd, 1 a.m.	55·5	10th, 2 p.m.	29·5	·242	86	3·295

TABLE B., DECEMBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at

The values are not

(The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 9 a.m. and 9 p.m.	AIR TEMPERATURE.									
			At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Means of			Absolute Extremes.			
						Minima.	Maxima.	Min. and Max. combined.	Minimum.	Date.	Maximum.	Date.
		ins.	°	°	°	°	°	°	°		°	
0. SCOTLAND, N.	Orkneys (Sandwick Manse)	29·648	37·2	36·9	37·1	33·8	41·4	37·6	20·3	29th	52·5	5th
	Dunrobin Castle S	29·692	36·9	37·0	37·0	32·2	42·1	37·2	18·3	27th, 28th	55·3	6th
1. SCOTLAND, E.	Braemar S	29·723	32·2	31·9	32·1	26·2	40·1	33·2	−0·5	27th	52·7	6th
	Dundee S	29·741	36·2	36·3	36·3	32·4	40·3	36·4	19·2	17th	53·7	6th
	Glenalmond	29·754	35·5	35·5	35·5	30·0	41·8	35·9	15·0	17th, 27th	57·5	6th
2. ENGLAND, N.E.	Seaham	29·780	39·5	39·2	39·4	35·0	43·2	39·1	24·8	18th	52·8	6th
	Durham*	29·784	38·8	37·8	38·3	32·8	43·4	38·1	19·6	17th	52·8	6th
	York	29·832	38·5	40·0	39·3	35·0	44·5	39·8	25·0	18th	54·5	10th
	Hull	—	—	—	—	—	—	—	—	—	—	—
	Kelstern ℳ	29·858	37·7	38·7	38·2	34·1	43·7	38·9	26·7	27th	54·8	6th
3. ENGLAND, E.	Hillington ℳ	29·868	39·4	40·6	40·0	35·5	45·9	40·7	25·4	17th	52·9	10th, 23rd
	Geldeston	29·878	40·9	41·8	41·4	36·9	46·8	41·9	28·0	22nd	55·0	10th
	Chigwell Row	29·958	42·2	42·1	42·2	37·5	47·2	42·4	28·0	22nd	56·3	10th
4. MIDLAND COUNTIES.	Wakefield ℳ	29·846	39·1	40·7	39·9	34·6	45·3	40·0	23·2	18th	55·2	6th
	Buxton ℳ	29·926	38·0	37·7	37·9	31·9	43·5	37·7	14·9	21st	53·6	6th
	Cheadle ℳ	29·884	38·1	39·2	38·7	34·6	44·0	39·3	23·1	26th	53·2	6th
	Leicester	29·890	40·7	41·4	41·1	37·1	46·8	42·0	25·5	3rd	54·3	6th
	Uppingham	29·889	38·9	39·7	39·3	36·2	45·2	40·7	27·2	26th	52·9	10th
	Oscott	29·901	39·5	40·0	39·8	35·8	45·8	40·8	26·9	26th	55·3	6th
	Churchstoke ℳ	29·922	40·4	40·6	40·5	35·5	46·4	41·0	23·4	18th	53·8	6th
	Cheltenham ℳ	—	42·0	41·2	41·6	35·0	47·5	41·3	24·0	26th	55·0	10th
5. ENGLAND, S.	Marlborough ℳ	29·956	41·8	40·8	41·3	36·8	47·3	42·1	27·9	26th	53·4	10th
	Strathfield Turgiss ℳ	29·953	42·3	42·2	42·5	37·5	48·4	43·0	27·0	22nd	54·7	10th
	Ramsgate ℳ	29·948	43·1	43·3	43·2	37·8	48·4	43·1	29·5	26th	54·8	10th
	Folkestone	—	—	—	—	—	—	—	—	—	—	—
	Southampton	29·972	44·1	43·5	43·8	38·9	49·3	44·1	27·6	26th	55·4	10th
	St. Leonards	29·962	44·2	43·5	43·9	40·0	48·8	44·4	30·5	26th	56·0	10th
6. SCOTLAND, W.	Laudale	29·745	39·4	40·1	39·8	32·8	46·6	39·7	22·8	28th	56·2	5th
	Rothesay S	29·795	38·5	38·7	38·6	33·9	44·0	39·0	24·2	17th, 26th	53·5	5th, 6th
	Pinmore S	29·807	37·6	38·9	38·3	32·4	45·4	38·9	17·5	17th, 31st	54·1	5th, 6th
7. ENGLAND, N.W.	Scaleby ℳ	29·804	37·7	38·3	38·0	33·5	43·1	38·3	19·2	31st	53·2	6th
	Douglas (Isle of Man)	29·833	41·4	42·0	41·7	37·1	46·7	41·9	25·9	17th	53·6	10th
	Llandudno ℳ	29·872	43·6	43·4	43·5	39·6	47·7	43·7	29·2	18th	54·4	7th
8. ENGLAND, S.W.	St. David's	29·927	45·4	45·4	45·4	41·5	48·4	45·0	29·0	17th	52·9	10th
	Caermarthen ℳ	29·934	43·7	43·1	43·4	38·6	48·4	43·5	23·4	18th	54·5	10th
	Dartmoor ℳ	30·001	41·7	40·2	41·0	37·2	44·6	40·9	27·0	18th	49·4	29th
	Babbacombe ℳ	29·983	45·1	44·5	44·8	41·0	50·1	45·6	30·0	18th, 26th	55·4	10th
9. IRELAND, N.	Londonderry	29·841	40·1	40·2	40·2	34·9	44·5	39·7	21·5	28th	54·5	5th
	Brookeborough	29·839	38·0	38·9	38·5	32·7	44·3	38·5	13·8	30th	53·9	5th, 6th
	Markree Castle	29·867	39·0	39·5	39·3	33·2	45·8	39·5	15·8	30th	55·0	5th
10. IRELAND, S.	Dublin	29·891	42·5	42·6	42·6	38·4	46·3	42·4	28·8	26th	55·5	6th
	Parsonstown	29·920	39·7	40·3	40·0	35·1	45·7	40·4	20·9	30th	55·3	6th
CHANNEL	Jersey (St. Aubin's)	30·080	49·1	48·1	48·6	45·0	51·5	48·3	35·9	26th	55·2	14th, 27th

NOTE.—The stations marked ℳ are in connexion with the Royal Meteorological Society, those marked S with the Scottish Meteorological Society.

* At Durham the observations were taken at 10 a.m. and 10 p.m. each day.

STATIONS of the SECOND ORDER in the BRITISH ISLANDS during the Month of DECEMBER 1880. corrected for Diurnal Range.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.			RELATIVE HUMIDITY.			AMOUNT OF CLOUD (0 to 10).			RAINFALL.			WEATHER, No. of Days of							WIND, No. of Observations of							
At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	At 9 a.m.	At 9 p.m.	Mean of 9 a.m. and 9 p.m.	Total Fall in the Month.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E	South.	S.W.	West.	N.W.	Calms.
in.	in.	in.	%	%	%				ins.	ins.																	
·194	·193	·194	87	89	88	7·9	8·4	8·2	4·540	·830	25th	22	8	3	0	0	22	17	7	5	2	5	4	9	9	18	3
·203	·197	·200	90	86	88	—	—	—	4·250	1·010	23rd	18	9	0	0	—	—	0	7	7	3	3	0	5	16	21	0
·176	·179	·178	93	96	94	7·0	6·3	6·7	2·180	·320	11th	20	15	0	0	3	8	2	7	2	6	1	5	22	8	11	0
·183	·187	·185	83	85	84	7·4	7·9	7·7	2·150	·550	22nd	12	12	2	0	1	17	9	0	9	0	3	0	3	19	28	0
·183	·188	·186	86	88	87	6·4	6·3	6·4	2·700	·650	23rd	15	8	0	0	3	10	2	3	5	2	3	0	9	18	8	14
·209	·218	·214	86	91	89	4·7	5·3	5·0	3·598	1·183	29th	15	7	1	0	8	6	0	2	4	0	1	4	14	27	4	6
·211	·211	·211	87	90	89	5·9	4·9	5·4	2·756	1·062	29th	18	10	1	0	6	9	0	1	2	0	0	10	15	18	14	2
·209	·217	·213	90	88	89	5·9	5·4	5·7	3·220	·820	29th	20	5	0	0	5	9	1	9	1	0	2	6	7	27	7	3
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·218	·226	·222	95	94	94	6·1	5·5	5·8	2·638	·478	15th	19	7	0	0	4	7	1	2	1	3	1	7	15	24	9	0
·224	·234	·229	90	90	90	8·2	7·4	7·8	2·376	·303	15th	22	5	0	0	2	20	0	3	1	1	3	3	27	9	15	0
·237	·242	·240	91	89	90	7·4	5·8	6·6	1·970	·290	27th	20	6	2	0	4	14	5	0	1	5	0	3	15	32	4	2
·249	·246	·248	93	92	92	8·4	7·0	7·7	3·020	·470	19th	17	4	0	0	1	16	0	2	2	5	2	4	9	23	9	6
·215	·224	·220	88	86	87	7·1	7·4	7·3	3·570	·800	22nd	20	5	0	0	1	13	1	4	2	4	2	4	12	29	5	0
·216	·211	·214	92	90	91	7·9	6·7	7·3	8·625	1·120	22nd	25	12	0	0	1	16	0	1	1	1	4	0	8	14	31	2
·214	·218	·216	93	91	92	7·9	6·3	7·1	5·120	·910	29th	24	6	0	0	1	14	10	0	1	3	2	3	14	12	18	9
·231	·235	·233	91	91	91	7·8	6·1	7·0	3·220	·370	26th	23	5	0	0	4	13	1	0	5	0	1	1	37	9	5	4
·223	·221	·222	91	88	90	7·3	6·6	7·0	2·307	·294	26th	23	7	0	0	3	17	2	6	3	0	1	3	17	21	8	3
·232	·227	·230	93	90	91	7·7	6·9	7·3	3·350	·470	29th	20	7	1	0	1	16	2	2	4	1	3	7	20	15	6	4
·233	·230	·232	90	89	90	7·9	7·4	7·7	4·562	·913	29th	17	8	0	0	0	16	0	1	5	2	4	1	6	21	20	2
·248	·234	·241	90	88	89	8·2	6·2	7·2	2·920	·400	14th	17	7	0	0	1	14	0	1	0	0	0	8	10	18	8	17
·251	·236	·244	92	90	91	7·9	6·2	7·1	3·910	·840	29th	18	5	0	0	4	17	0	2	2	2	0	3	1	21	13	18
·250	·241	·246	89	87	88	7·6	5·7	6·7	2·820	·563	29th	15	3	1	0	3	13	0	2	5	0	3	1	12	29	8	2
·265	·259	·262	94	91	92	8·5	7·3	7·9	2·070	·590	19th	12	0	0	0	0	17	1	0	1	3	1	7	29	12	0	9
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
·277	·264	·271	93	91	92	8·2	6·4	7·3	4·218	·810	19th	17	1	1	0	3	18	1	1	7	0	2	2	22	13	14	1
·272	·264	·268	92	91	92	8·2	5·8	7·0	4·999	1·360	19th	20	0	1	0	1	12	6	5	1	2	0	6	8	26	12	2
·231	·238	·235	92	94	93	7·6	8·4	8·0	7·690	1·000	18th	24	16	1	0	2	23	1	9	3	3	17	1	10	4	6	9
·214	·218	·216	87	89	88	—	—	—	6·233	1·010	18th	24	9	0	0	—	—	0	0	5	7	4	3	9	12	15	7
·212	·220	·216	90	90	90	—	—	—	5·240	·750	12th	24	—	—	—	—	—	—	15	7	3	2	0	6	14	15	0
·205	·213	·209	88	89	88	7·2	7·1	7·2	3·030	·680	22nd	22	5	1	0	4	18	7	3	7	5	3	0	26	4	3	11
·243	·250	·247	91	92	91	6·9	7·2	7·1	3·235	·650	22nd	23	5	4	0	1	13	6	8	3	2	1	1	11	16	10	10
·245	·246	·246	85	86	85	7·2	6·5	6·9	5·400	1·000	29th	20	2	2	0	5	16	1	11	0	4	2	3	6	34	2	0
·275	·271	·273	88	86	87	7·9	7·1	7·5	5·432	1·071	29th	18	0	0	0	1	12	2	7	3	3	1	3	23	14	7	1
·276	·263	·270	94	92	93	8·3	7·3	7·8	6·830	1·070	29th	21	1	2	0	1	17	0	3	0	6	1	1	16	19	4	12
·256	·243	·250	95	96	95	9·2	9·3	9·3	10·460	1·430	19th	23	5	0	0	1	27	0	4	3	3	0	3	24	15	10	0
·279	·269	·274	91	90	90	8·2	6·9	7·6	4·560	·890	19th	17	2	0	0	1	15	7	3	2	2	1	2	24	23	5	0
·229	·228	·229	88	88	88	8·5	7·4	8·0	3·940	·600	22nd	26	7	2	0	1	17	1	2	2	0	2	3	18	21	5	9
·210	·219	·215	92	93	93	8·1	7·6	7·9	5·803	·605	22nd	22	4	0	0	1	18	4	3	3	1	3	7	15	7	8	15
·224	·227	·225	89	90	89	8·6	8·2	8·4	3·092	·475	13th	24	3	2	0	0	18	0	1	1	0	4	3	13	10	10	21
·243	·247	·245	87	88	87	6·5	6·7	6·6	3·252	·680	14th	16	7	4	0	1	11	2	2	1	4	2	0	13	28	8	4
·239	·244	·242	93	93	93	7·5	6·4	7·0	3·056	·486	14th	23	5	1	0	3	13	2	6	1	0	4	13	14	9	2	13
·306	·301	·304	87	88	88	9·0	7·6	8·3	4·576	1·230	19th	22	0	3	1	0	19	4	4	0	2	2	3	18	18	7	8

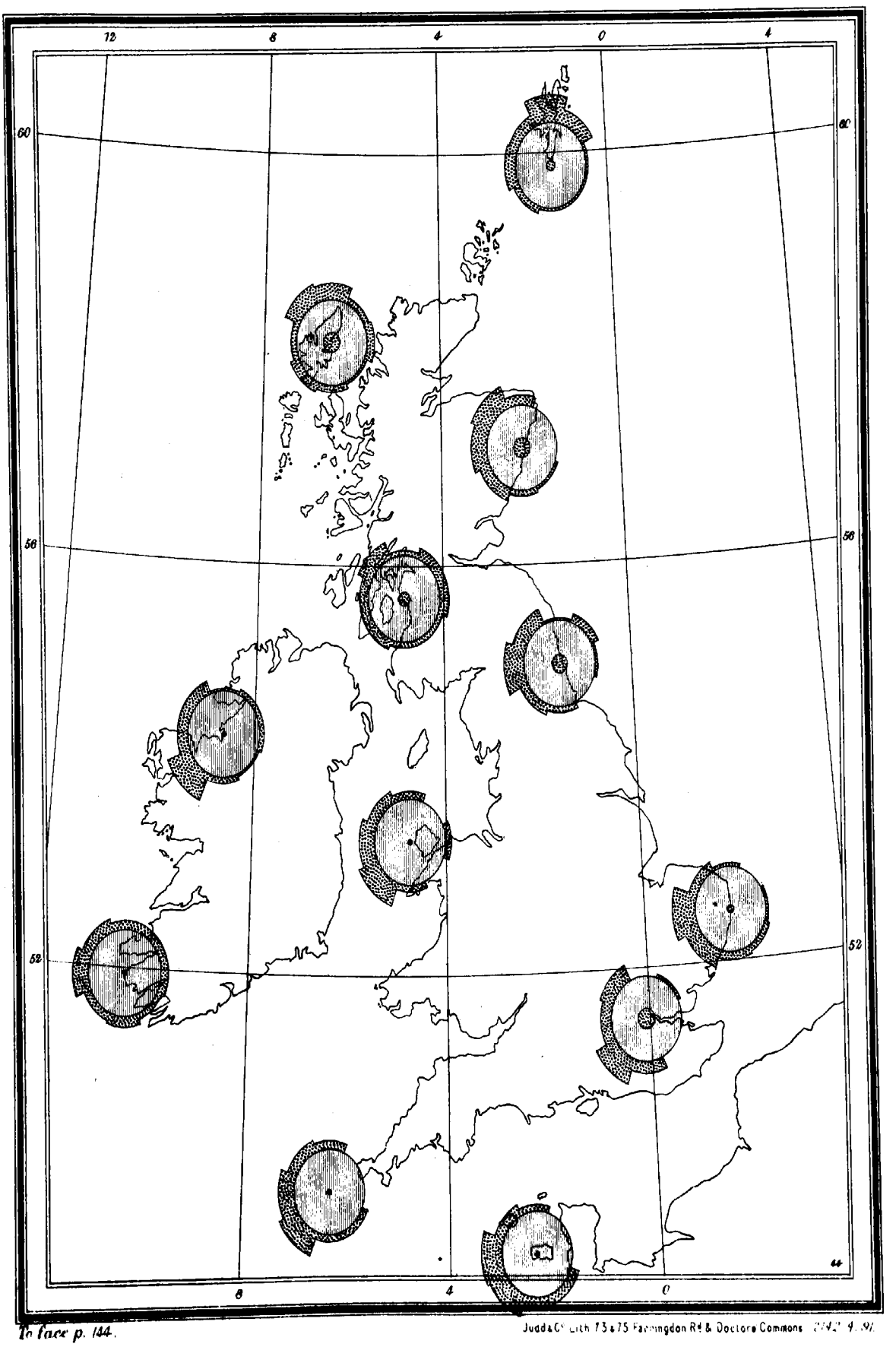
TABLE C., DECEMBER.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING STATIONS in the BRITISH ISLANDS during the Month of DECEMBER 1880. Observations are made at 8 a.m. daily.

(The Stations are grouped in Districts, and then arranged in order of Latitude, beginning in each case with the Station lying furthest North.)

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	AIR TEMPERATURE. At 8 a.m.	Means of: Minima.	Means of: Maxima.	Means of: Min. and Max. combined.	Absolute Extremes. Minimum.	Absolute Extremes. Minimum. Date.	Absolute Extremes. Maximum.	Absolute Extremes. Maximum. Date.	TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD (0 to 10).	RAINFALL. Total Fall in the Month.	RAINFALL. Maximum Fall in one Day.	RAINFALL. Date.	WEATHER. No. of Days of: Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	WIND. No. of Observations of: North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
		ins.	°	°	°	°	°		°		in.	%		ins.	ins.																	
0. SCOTLAND, N.	Sumburgh Head	29·566	37·3	32·4	41·0	36·7	21	14th, 18th	50	5th, 6th, 7th, 8th.	0·184	83	8·3	4·86	1·05	23rd	27	6	0	0	0	21	14	11	5	1	1	1	2	5	4	1
	Wick	29·645	35·8	29·3	40·2	34·8	10	27th, 28th	54	5th	·186	89	7·7	4·98	0·80	24th	23	6	2	0	3	19	14	5	0	1	2	4	2	6	10	1
	Stornoway	29·668	37·5	32·0	41·2	36·6	15	27th	54	5th, 8th	·214	95	7·3	3·83	0·70	22nd	24	5	0	0	1	15	15	6	2	3	1	2	4	2	7	4
1. SCOTLAND, E.	Nairn	29·676	36·9	32·6	40·8	36·7	15	28th	55	5th	·190	87	5·6	2·17	0·42	23rd	21	12	0	0	8	12	9	0	1	1	1	0	6	6	8	8
	Aberdeen	29·678	36·3	31·1	41·5	36·3	14	27th, 28th	55	6th, 11th	·179	84	5·7	4·41	0·79	24th	25	13	3	0	3	10	3	3	0	0	1	2	5	7	9	4
	Leith	29·742	38·5	34·0	43·8	38·9	23	17th	56	5th, 6th	·199	86	6·6	2·46	0·47	19th	19	6	0	0	4	17	4	2	4	3	1	1	2	12	6	0
2. ENGLAND, N.E.	Shields	29·779	38·9	35·1	44·3	39·7	25	18th	56	6th	·213	91	7·5	2·96	0·81	29th	17	6	2	0	4	17	9	1	3	1	0	2	4	10	7	3
	York	29·835	38·4	34·9	44·9	39·9	25	18th	55	10th	·206	89	6·0	3·20	0·82	29th	20	1	0	0	10	13	0	4	0	0	0	5	3	15	2	2
	Spurn Head	29·806	41·3	36·9	45·3	41·1	31	26th	54	12th	·232	90	6·2	1·71	0·40	22nd	16	2	0	0	0	9	0	0	1	0	2	3	11	9	4	1
3. ENGLAND, E.	Yarmouth	29·866	40·7	36·2	45·3	40·8	27	3rd	54	10th	·229	90	5·2	2·00	0·28	27th	20	1	0	0	8	8	1	1	0	1	2	3	7	12	4	1
	Cambridge	29·891	40·5	35·4	47·3	41·4	25	3rd	55	6th, 8th, 10th, 22nd.	·231	92	6·9	2·36	0·32	27th	19	4	0	0	0	15	0	1	3	0	1	3	12	7	4	0
4. MIDLAND COUNTIES.	Nottingham	29·887	39·4	34·5	45·8	40·2	23	22nd	57	6th	·218	91	7·3	3·25	0·63	15th	25	5	2	0	5	16	0	2	1	1	1	4	8	7	5	2
	Oxford	29·925	41·5	37·3	47·4	42·4	29	3rd, 27th	55	10th	·238	91	7·9	2·99	0·42	27th	18	4	0	0	6	22	2	4	0	0	1	6	7	10	0	3
5. ENGLAND, S.	London	29·929	42·1	37·7	48·3	43·0	27	22nd	57	10th	·240	90	8·2	3·23	0·48	19th, 22nd. 29th.	17	6	0	0	5	22	4	0	1	0	0	4	11	5	6	4
	Dover	29·936	44·5	40·7	48·5	44·6	32	25th, 26th, 27th.	56	10th	·261	90	5·1	3·57	0·76	22nd	17	0	0	0	0	7	1	3	1	1	0	0	4	18	4	0
	Hurst Castle	29·951	45·3	42·3	49·3	45·3	31	26th	53	9th, 10th	·284	94	6·9	4·64	0·77	19th	19	0	1	0	1	11	3	2	2	1	0	1	4	10	10	1
6. SCOTLAND, W.	Ardrossan	29·777	40·3	36·1	44·9	40·5	22	31st	55	7th	·225	91	8·0	5·13	0·87	22nd	25	6	1	0	0	20	7	2	4	4	2	2	4	4	7	2
7. ENGLAND, N.W.	Hawes Junction*	28·559	35·1	31·4	39·5	35·5	21	18th, 31st	48	9th, 10th	·199	97	7·9	8·48	2·12	22nd	21	12	0	0	3	21	7	0	1	6	1	4	5	11	1	2
	Barrow-in-Furness	29·820	40·5	37·2	45·5	41·4	26	14th	51	10th	·233	93	8·5	5·67	1·10	22nd	27	5	0	0	0	23	2	5	7	1	2	1	6	3	6	0
	Liverpool	29·852	41·5	38·7	46·2	42·5	29	18th	54	7th	·224	86	7·7	5·04	0·93	22nd	21	0	0	0	4	17	6	2	1	2	5	1	7	10	2	1
	Holyhead	29·855	44·4	40·8	47·6	44·2	34	18th	53	9th, 10th	·267	91	7·6	4·26	0·80	22nd	23	0	4	0	0	12	4	3	1	2	0	2	10	8	5	0
8. ENGLAND, S.W.	Pembroke	29·877	46·5	43·1	49·9	46·5	31	18th	53	2nd, 4th, 14th, 15th.	·283	90	7·9	5·79	1·12	29th	17	0	0	0	0	14	9	2	4	1	0	1	8	9	6	0
	Prawle Point	29·967	46·7	42·6	50·6	46·6	31	25th	54	1st	·298	94	7·6	5·28	1·14	16th	23	0	0	0	0	12	7	1	2	0	1	2	8	10	7	0
9. IRELAND, N.	Donaghadee	29·809	41·2	36·9	45·8	41·4	26	27th	54	5th, 6th, 9th.	·237	92	7·3	2·41	0·75	22nd	21	0	0	0	0	11	9	1	2	1	2	2	10	8	5	0
	Mullaghmore	29·820	42·8	37·9	46·5	42·2	25	17th	56	5th	·242	88	7·9	5·22	·96	22nd	26	1	9	0	3	15	14	1	2	2	1	2	13	5	5	0
10. IRELAND, S.	Valencia	29·930	45·9	41·8	50·5	46·2	31	17th, 18th	55	2nd, 3rd, 4th, 5th, 13th, 21st, 22nd.	·266	87	8·8	5·17	0·78	21st	25	0	1	0	0	22	11	3	3	3	2	4	3	8	5	0
	Roche's Point	29·923	45·2	41·5	50·3	45·9	32	20th, 30th, 31st.	56	5th, 9th	·262	88	8·1	4·71	0·65	27th	17	0	0	0	1	19	2	5	3	1	1	0	8	9	4	0
CHANNEL ISLANDS	Scilly (St. Mary's)	29·983	49·6	46·9	52·2	49·6	38	26th	56	1st, 5th	·335	95	9·2	6·63	1·15	19th	24	0	2	0	0	23	13	3	2	0	2	2	10	8	4	0
	Jersey	30·001	48·5	45·2	51·4	48·3	33	26th	55	19th, 27th	·306	90	8·1	4·86	1·22	19th	23	0	3	1	0	13	12	2	0	0	3	3	9	10	4	0

* Hawes Junction is 1,135 feet above Mean Sea Level, and the barometric observations at this station are not corrected for altitude.

Monthly Wind Chart for December, 1880.

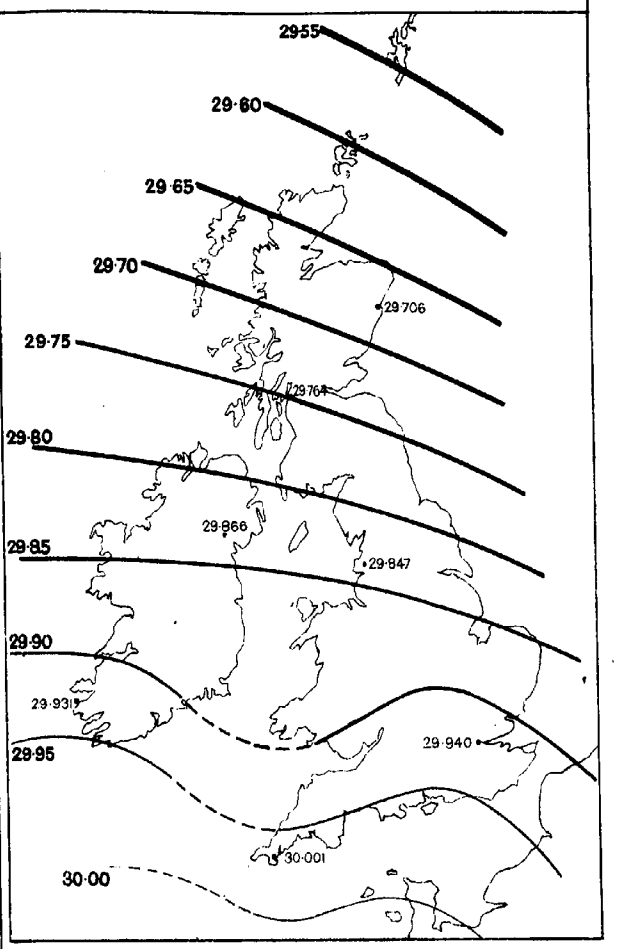


To face p. 144.

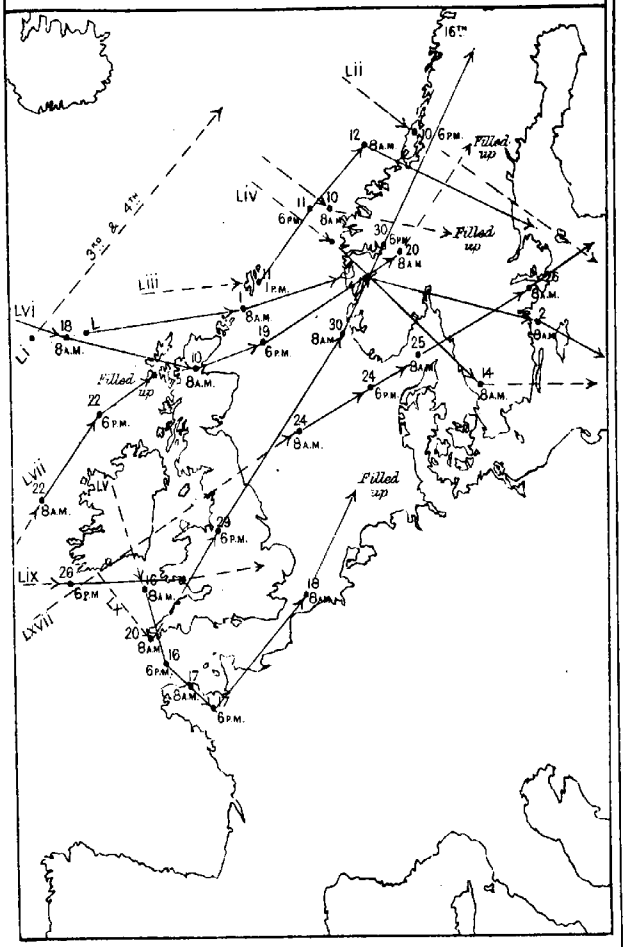
Judd & Co. Lith. 73 & 75 Farringdon Rd & Doctors Commons

Monthly Weather Chart, December, 1880.

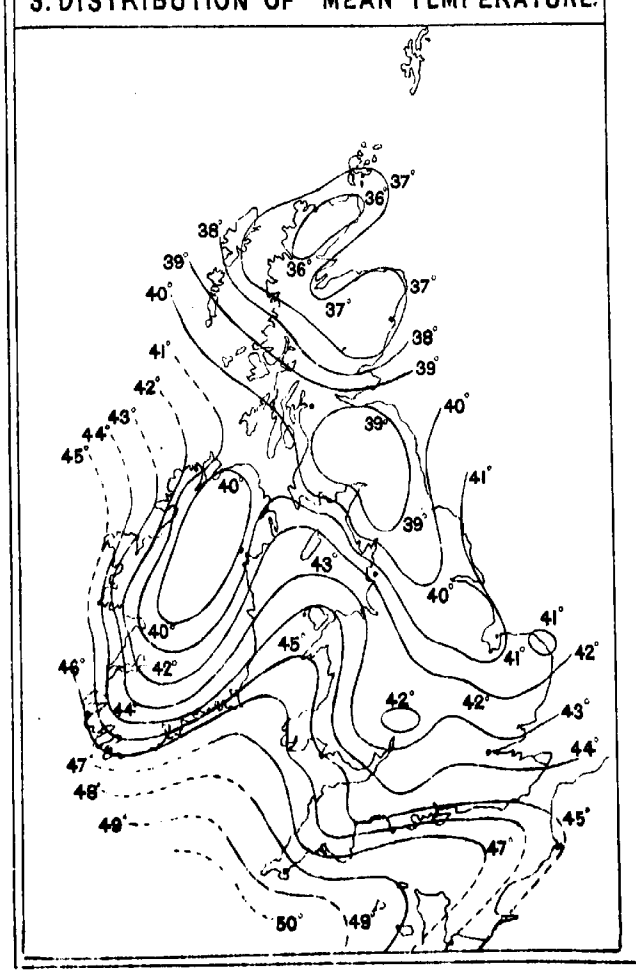
1. DISTRIBUTION OF MEAN PRESSURE.



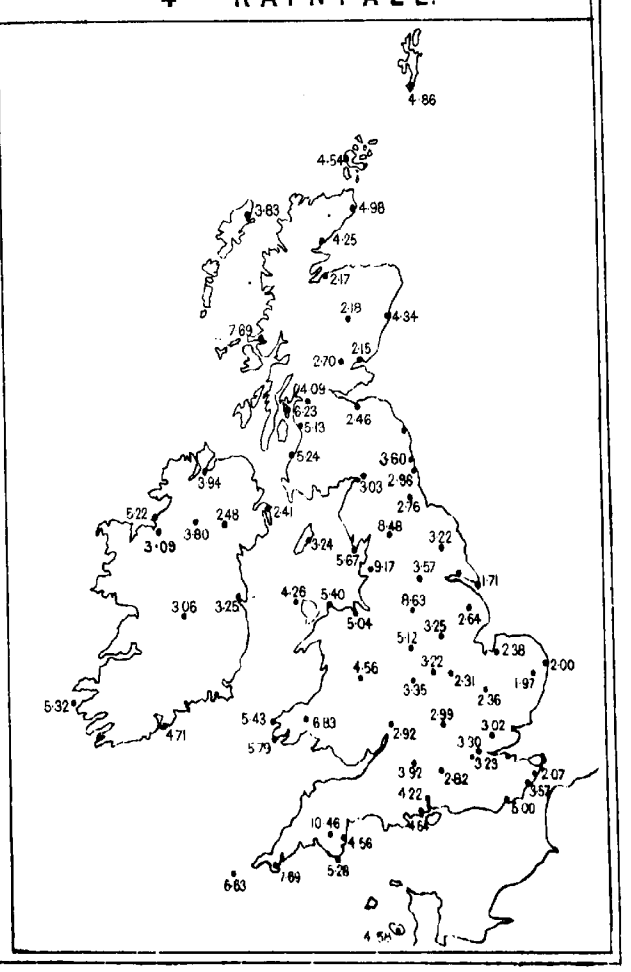
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.



To follow Wind Chart for December

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APPENDIX.

APPENDIX I.

TABLE I.—MEAN MONTHLY RESULTS from the continuous RECORDS at the SEVEN BRITISH OBSERVATORIES for the Year 1880.

VALENCIA.

1880. MONTHS.	THERMOMETER.					BAROMETER.					VAPOUR TENSION.
	Means.	Extremes.				Means.	Extremes.				
		Maximum.		Minimum.			Maximum.		Minimum.		
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.	
	°	D. H.	°	D. H.	°	ins.	D. H.	ins.	D. H.	ins.	in.
January - -	44·3*	1st, 3 a.m.	54·6	22nd, 9 a.m.	31·0	30·211	21st, Noon	30·532	30th, 4 a.m.	29·561	·243
February - -	46·3	18th, 2 p.m.	53·0	25th, 5 a.m.	35·9	29·616	25th, 1 a.m.	·537	**16th, 1 p.m.**	**28·533**	·265
March - -	48·5	20th, 3 p.m.	59·1	1st, 2 p.m.	37·0	* ·944	8th, 10 a.m. } 11 a.m. }	·459	2nd, 8 p.m.	29·082	·285
April - -	48·5	29th, 3 p.m.	59·8	11th, 5 a.m.	38·0	29·845	30th, 9 a.m.	·479	5th, 5 p.m.	·230	·266
May - - -	53·0	15th, 3 p.m.	71·9	1st, 5 a.m.	40·6	30·103	29th, 1 a.m.	·474	23rd, Midnt.	·662	·299
June - - -	56·6	17th, 6 p.m.	72·8	10th, 5 a.m.	42·5	29·935	15th, 1 p.m.	·339	20th, 5 a.m.	·436	·370
July - - -	58·9	16th, 6 p.m.	71·3	22nd, 4 a.m.	47·9	·880	4th, 11 p.m. } Midnt. }	·273	27th, 10 p.m. } 11 p.m. }	·417	·406
August - -	62·8	**15th, 3 p.m.**	**77·2**	9th, 6 a.m.	50·1	·990	10th, 10 p.m.	·274	7th, 8 a.m.	29·329	·480
September - -	59·4	3rd, 5 p.m.	72·2	18th, 2 p.m.	49·5	·928	28th, 10 p.m.	·437	14th, 5 a.m. } 6 a.m. }	28·871	·422
October - -	47·1	1st, 3 p.m.	65·6	30th, 8 a.m.	32·9	·940	24th, 10 p.m.	·368	27th, 9 p.m.	·855	·361
November - -	47·6	13th, 4 a.m. } 9 a.m. }	56·4	**20th, 7 a.m.**	**29·7**	·849	4th, 10 a.m.	·545	16th, 1 a.m.	28·687	·275
December - -	46·5	5th, 2 p.m.	54·4	17th, 5 a.m.	33·4	29·906	**9th, 11 a.m.**	**30·631**	23rd, 9 p.m.	29·068	·272
Annual - -	51·6	—	—	—	—	29·929	—	—	—	—	·320

* Mean for one day is approximate.

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Table I.—Mean Monthly Results, &c.—*continued.*

ARMAGH.

1880. Months.	Thermometer. Means.	Thermometer. Extremes. Maximum. Day.	Thermometer. Extremes. Maximum. Ther.	Thermometer. Extremes. Minimum. Day.	Thermometer. Extremes. Minimum. Ther.	Barometer. Means.	Barometer. Extremes. Maximum. Day.	Barometer. Extremes. Maximum. Bar.	Barometer. Extremes. Minimum. Day.	Barometer. Extremes. Minimum. Bar.	Vapour Tension. Means.
	°	D. H.	°	D. H.	°	ins.	D. H.	ins.	D. H.	ins.	in.
January	39·0	1st, 1 p.m.	54·0	22nd, 2a.m. 3 a.m.	18·0	30·043	21st, 10 a.m.	30·461	1st, 9 p.m.	29·255	·203
February	43·1	4th, 2 p.m.	53·2	9th, 2 a.m.	32·2	29·383	24th, Midnt.	·252	16th, 8 p.m.	28·160	·239
March	43·9	31st, 2 p.m.	55·0	23rd, 7 a.m.	27·2	·794	8th, 11 a.m.	·311	3rd, 3 a.m.	·561	·238
April	45·8	19th, 2 p.m.	58·0	16th, 0·2 a.m.	33·4	·612	29th, 11 p.m.	·312	5th, 5 p.m.	28·893	·250
May	50·2	18th, 3 p.m.	68·2	8th, 5 a.m.	34·0	·899	29th, 9 a.m.	·237	24th, 4 a.m.	29·270	·276
June	55·4	18th, 1 p.m.	68·6	10th, 5 a.m.	38·1	·717	1st, 11 p.m.	30·181	21 st, 6 a.	·290	·350
July	56·6	17th, 1 p.m.	68·2	21st, 5 a.m.	45·5	*·636	4th, 11 p.m.	29·992	28th, 11 a.m.	·178	·397
August	†60·9	15th, 2 p.m.	74·5	2nd, 5 a.m.	46·9	·816	11th, 11 a.m.	30·097	7th, 2 p.m.	·213	·440
September	56·2	4th, 4 p.m.	75·0	19th, 5 a.m.	43·3	‡·713	28th, 9 p.m. 10 p.m. 11 p.m.	·271	14th, 11 a.m.	§29·164	·383
October	43·3	1st, 2 p.m.	59·1	22nd, 6 a.m.	26·3	·783	13th, 9 p.m.	·217	28th, 4 a.m.	28·839	·239
November	42·5	13th, Noon	56·1	20th, 8 a.m.	24·0	·617	3rd, 9 p.m.	·291	16th, 7 a.m.	·498	·234
December	40·3	6th, 3 a.m.	54·0	27th, 1 a.m.	26·7	29·633	6th, Midnt.	30·316	23rd, 11 p.m. Midnt.	28·842	·223
Annual	48·1	—	—	—	—	29·721	—	—	—	—	·289

* Mean for one day is approximate.
† Means for two days are approximate.
‡ Means for three days are approximate.
§ Lowest reading recorded, trace lost for nine hours.

GLASGOW.

	°	D. H.	°	D. H.	°	ins.	D. H.	ins.	D. H.	ins.	in.
January	38·0	1st, 7 p.m.	53·9	21st, 7 a.m. 9 a.m.	23·6	30·032	21st, 10a.m.	30·435	1st, 1 a.m.	29·104	·201
February	42·9	4th, 3 p.m.	52·3	9th, 9 a.m.	31·6	29·367	24th, 10 p.m.	·137	16th, 8 p.m.	28·337	·232
March	41·2	30th, 3 p.m.	56·2	28th, 6 a.m.	29·9	·824	8th, 10 a.m. 11 a.m.	·315	3rd, 4 a.m.	·478	·212
April	45·5	30th, 3 p.m.	57·6	27th, 5 a.m.	33·6	·603	29th, 10 p.m.	·339	5th, 5 p.m.	28·864	·233
May	49·7	19th, 4 p.m.	69·2	9th, 5 a.m.	35·7	·881	9th, 7 a.m. 8 a.m.	·193	24th, 4 a.m.	29·168	·254
June	55·4	22nd, 2 p.m.	71·5	9th, 5 a.m.	37·3	·703	1st, 11 p.m.	·242	7th, 1 p.m.	·283	·327
July	57·1	17th, 3 p.m.	73·2	12th, 4 a.m.	45·0	·613	14th, 11 a.m. 1 p.m.	·023	28th, 8 p.m.	·136	·366
August	59·7	14th, 4 p.m.	76·4	1st, 6 a.m.	44·0	·823	12th, 7 a.m.	·137	7th, 5 p.m.	·172	·402
September	55·3	4th, 3 p.m.	77·6	20th, 5 a.m.	40·1	·693	28th, 10 p.m.	·279	11th, 1 a.m.	29·261	·362
October	43·0	1st, 1 p.m.	60·0	20th, 8 a.m.	24·1	·761	11th, Midnt.	·243	28th, 4 a.m.	28·970	·217
November	39·5	13th, 8 a.m.	54·3	20th, 10.am.	15·2	·583	3rd, 6 p.m. 21st, 2 a.m.	·229	16th, 11 a.m.	·516	·207
December	38·5	6th, 9 a.m	52·5	17th, 9 a.m.	15·5	29·557	7th, 2 a.m.	30·285	19th, 5 a.m.	28·611	·201
Annual	47·2	—	—	—	—	29·703	—	—	—	—	·268

Table I.—Mean Monthly Results, &c.—*continued.*

ABERDEEN.

1880. Months.	Thermometer. Means.	Thermometer. Extremes. Maximum. Day.	Thermometer. Extremes. Maximum. Ther.	Thermometer. Extremes. Minimum. Day.	Thermometer. Extremes. Minimum. Ther.	Barometer. Means.	Barometer. Extremes. Maximum. Day.	Barometer. Extremes. Maximum. Bar.	Barometer. Extremes. Minimum. Day.	Barometer. Extremes. Minimum. Bar.	Vapour Tension.
	°	D. H.	°	D. H.	°	ins.	D. H.	ins.	D. H.	ins.	in.
January	38·1	1st, 9 p.m.	54·3	10th, 5 a.m.	26·6	*30·102	**12th, 10 a.m.**	**30·549**	1st, 11 p.m.	29·146	·191
February	42·1	29th, 4 p.m.	53·3	9th, 6 a.m.	28·4	29·453	24th, 10 a.m.	·164	20th, 1 a.m.	28·693	·219
March	40·9	29th, 2 p.m.	53·2	20th, 6 a.m.	28·3	·952	11th, 9 p.m.	·406	**1st, 7 a.m.**	**·476**	·202
April	44·3	20th, 4 p.m.	56·5	30th, 5 a.m.	33·5	·717	29th, 9 p.m.	·459	5th, 3 p.m.	28·953	·233
May	48·3	19th, 4 p.m.	65·2	14th, 4 a.m.	34·7	·987	15th, 9 a.m.	·320	24th, 9 a.m.	29·192	·245
June	*52·5	28th, 2 p.m.	71·1	7th, 4 a.m.	40·8	·833	1st, 10 p.m.	·404	7th, 6 p.m.	·326	·322
July	55·1	25th, 2 p.m.	68·1	9th, 4 a.m.	43·8	·739	14th, 10 a.m. 11 a.m.	·211	29th, 4 a.m.	·179	·356
August	58·1	10th, 1 p.m.	75·0	3rd, 4 a.m.	48·0	†·947	12th, 8 a.m. Noon	‡·280	7th, 5 p.m. 6 p.m.	·259	·403
September	55·6	**3rd, 1 p.m.**	**75·6**	19th, 5 a.m.	38·4	·791	28th, 7 p.m.	·412	11th, 4 a.m.	·345	·357
October	42·6	1st, 1 p.m.	62·2	20th, 3 a.m.	28·3	·859	11th, 9 p.m.	·378	28th, 5 a.m.	29·275	·217
November	39·7	6th, 1 p.m.	54·4	**21st, 6 a.m.**	**14·2**	·655	21st, 4 a.m.	·349	26th, 1 p.m.	28·666	·194
December	36·6	6th, 11 a.m.	54·2	27th, 9 a.m. 6 p.m. 7 p.m.	16·0	29·606	6th, Midt. 7th, 1 a.m.	30·329	19th, 7 a.m.	28·617	·180
Annual	46·2	—	—	—	—	29·803	—	—	—	—	·260

* Mean for one day is approximate. † Means for two days are approximate. ‡ Approximate reading, trace rather faint.

FALMOUTH.

		D. H.		D. H.		ins.	D. H.	ins.	D. H.	ins.	in.
January	41·2	1st, 1 p.m.	52·5	**18th, 7 a.m.**	31·3	30·112	21st, 11 a.m.	30·384	18th, 6 a.m. 7 a.m.	29·723	·212
February	46·2	19th, 2 p.m.	53·1	25th, 5 a.m.	34·5	29·562	25th, 10 a.m.	·316	**16th, 10 a.m.**	**28·233**	·272
March	47·1	5th, 1 p.m.	55·4	30th, 2 a.m.	36·7	·834	8th, 11 a.m.	·190	31st, 1 p.m.	29·106	·276
April	47·9	3rd, 1 p.m.	58·0	30th, 6 a.m.	37·5	·661	30th, 8 a.m. 9 a.m.	·208	6th, 4 a.m.	·089	·259
May	52·6	15th, 6 p.m.	67·0	2nd, 6 a.m.	40·8	·875	29th, 8 a.m. 9 a.m.	·312	3rd, 3 p.m. 5 p.m.	·486	·295
June	56·2	22nd, 3 p.m.	67·9	5th, 4 a.m.	45·5	·733	27th, 10 p.m.	·104	20th, 5 a.m.	·304	·367
July	60·4	17th, 4 p.m.	70·7	16th, ?	*50·9	·711	5th, 8 a.m. 10 a.m. 11 a.m.	·052	26th 9 a.m.	·184	·421
August	62·4	**13th, 2 p.m.**	**73·3**	7th, 2 a.m.	55·7	·785	10th, 9 a.m. 10 a.m.	·117	7th, 2 p.m.	29·218	·463
September	59·1	1st, 1 p.m.	71·0	19th, Midt.	50·7	·776	28th, 11 a.m.	·251	14th, 5 p.m.	28·861	·429
October	49·8	2nd, Noon	62·0	30th, 6 a.m.	36·5	†·643	14th, 10 a.m.	·189	28th, 5 a.m.	·510	·287
November	47·5	14th, Noon	56·7	20th, 9 a.m.	34·3	·756	4th, 11 a.m.	·262	18th, 3 p.m.	·541	·269
December	47·9	5th, 2 p.m.	54·0	18th, 2 a.m.	36·4	29·767	**8th, 10 a.m.**	**30·457**	29th, 1 p.m.	28·856	·286
Annual	51·5	—	—	—	—	29·768	—	—	—	—	·320

* Corrected reading of Phillips' minimum thermometer, obtained from Weather Sheet. † Mean for one day is approximate.

Table I.—Mean Monthly Results, &c.—*continued.*

STONYHURST.

1880. Months.	Thermometer. Means.	Thermometer. Extremes. Maximum. Day.	Thermometer. Extremes. Maximum. Ther.	Thermometer. Extremes. Minimum. Day.	Thermometer. Extremes. Minimum. Ther.	Barometer. Means.	Barometer. Extremes. Maximum. Day.	Barometer. Extremes. Maximum. Bar.	Barometer. Extremes. Minimum. Day.	Barometer. Extremes. Minimum. Bar.	Vapour Tension.
	°	D. H.	°	D. H.	°	ins.	D. H.	ins.	D. H.	ins.	in.
January - -	34·8	31st, 2 p.m.	52·0	20th, 7 a.m.	19·3	29·927	21st, 10a.m., 11 a.m.	30·248	1st, 1 a.m.	29·149	·168
February - -	41·5	19th, 2 p.m.	50·9	6th, 5 a.m.	25·9	·289	24th, 10p.m.	·027	16th, 4 p.m.	28·218	·227
March - -	41·7	30th, 3 p.m.	55·4	20th, 6 a.m.	27·8	·682	8th, 10a.m.	·159	3rd, 5 a.m.	·518	·209
April - - -	45·2	19th, 4 p.m.	57·6	30th, 5 a.m.	31·2	·452	29th, Midnt.	·140	5th, Midnt., 6th, 3 a.m.	28·803	·231
May - - -	49·6	20th, 1 p.m.	66·8	7th, ?	*32·9	·709	29th, Noon	30·061	24th, 5 a.m., 6 a.m.	29·175	·257
June - - -	55·7	22nd, Noon	70·0	5th, 4 a.m.	37·1	·523	1st, 11 a.m.	29·928	7th, 8 a.m.	·116	·343
July - - -	58·0	17th, 2 p.m.	74·4	21st, 2 a.m.	48·8	·456	5th, 8 a.m., 9 a.m.	·751	29th, 11a.m., Noon	29·086	·390
August - -	†60·8	11th, 3 p.m., 14th, 3 p.m.	77·0	10th, 5 a.m.	48·0	·641	10th, Midnt.	‡29·930	7th, 5 p.m.	28·921	·413
September - -	57·1	4th, 1 p.m.	78·6	19th, 11 p.m.	43·9	·550	28th, Midnt.	30·112	15th, 4 a.m.	·892	·384
October - -	43·8	1st, 1 p.m.	60·4	20th, 4 a.m.	24·8	·531	14th, 8 a.m.	·007	28th, 6 a.m.	·483	·224
November - -	41·0	13th, 10 a.m.	55·0	22nd, 9 a.m.	21·0	·483	21st, 4 a.m., 5 a.m.	·101	16th, 1 p.m.	·062	·217
December - -	39·8	6th, Noon, 7th, 11 a.m.	50·3	31st, 9 a.m.	27·1	29·443	7th, 11 a.m.	30·178	29th, 8 p.m.	28·464	·217
Annual - -	47·4	—	—	—	—	29·557	—	—	—	—	·273

* Corrected reading of Phillips' minimum thermometer, obtained from Weather Sheet. † Mean for one day is approximate.
‡ Approximate reading, trace rather faint.

KEW.

		D. H.		D. H.		ins.	D. H.	ins.	D. H.	ins.	in.
January - -	33·2	1st, 1 p.m.	55·0	27th, 10 p.m., 28th, 0·20 a.m.	18·9	*30·347	7th, 10 a.m.	30·648	1st, 1 a.m.	29·760	·165
February - -	41·9	20th, 3 p.m.	53·2	2nd, 7 a.m.	25·0	29·774	25th, 9 a.m.	·443	17th, 7 a.m.	28·789	·232
March - -	44·5	25th, 3 p.m.	60·6	29th, 7 a.m.	27·7	30·074	8th, 10 a.m.	·474	3rd, 2 a.m., 3 a.m., 4 a.m.	29·219	·229
April - -	47·3	19th, 3 p.m.	64·6	8th, 5 a.m.	34·7	†29·841	30th, 7 a.m.	·407	6th, 5 a.m.	·235	·246
May - - -	51·9	26th, 2 p.m.	‡81·0	2nd, 5 a.m.	32·2	30·051	29th, 8 a.m.	·449	27th, 6 a.m.	·649	·267
June - - -	57·7	29th, 5 p.m.	76·0	5th, 4 a.m.	37·4	29·877	27th, 10p.m., 11 p.m.	·202	7th, 1 p.m.	·557	·363
July - - -	61·6	15th, 6 p.m.	76·9	31st, 5 a.m.	48·6	·864	5th, 8 a.m.	·158	26th, 5 p.m.	·413	·420
August - -	62·6	28th, 3 p.m.	§77·6	3rd, 4 a.m.	49·7	·961	10th, 8 a.m., 10 a.m.	·277	7th, 9 p.m.	·168	·436
September - -	59·5	4th, 2 p.m.	84·0	20th, 4 a.m.	44·0	·948	29th, 10 a.m.	·473	15th, 4 a.m.	29·111	·407
October - -	46·5	7th, 3 p.m.	64·1	24th, 7 a.m.	30·7	·852	14th, 10 a.m.	·395	28th, 10 a.m.	28·730	·268
November - -	42·7	13th, Noon	57·5	22nd, 8 a.m.	25·2	·938	21st, 5 a.m.	·453	16th, 2 p.m.	28·701	·229
December - -	43·3	10th, 2 p.m.	55·5	22nd, 1 a.m.	26·0	29·901	7th, 11 p.m.	30·641	29th, 8 p.m.	29·034	·242
Annual - -	49·4	—	—	—	—	29·952	—	—	—	—	·292

* Mean for one day is approximate. † Means for three days are approximate. ‡ Approximate reading, trace very faint.
§ Probable reading.

TABLE II.—PART 1.

FIVE-DAY MEANS of the DRY and WET BULB THERMOMETERS, and BAROMETER, from the continuous RECORDS at the SEVEN BRITISH OBSERVATORIES, January to June 1880.

Five-Day Periods.	THERMOMETERS.														BAROMETER.							Five-Day Periods.
	Valencia. 12 ft.		Armagh. 4 ft.		Glasgow. 7 ft.		Aberdeen. 41 ft.		Falmouth. 11 ft.		Stonyhurst. 7 ft.		Kew. 10 ft.		Valencia. 23 ft.	Armagh. 207 ft.	Glasgow. 184 ft.	Aberdeen. 88 ft.	Falmouth. 211 ft.	Stonyhurst. 361 ft.	Kew. 34 ft.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.								
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	ins.	ins.	ins.	ins.	ins.	ins.	ins.	
Jan. 1–5	49·1	46·9	46·3	44·8	45·8	44·2	43·3	40·8	47·9	46·3	44·5	42·8	43·6	41·9	30·093	29·803	29·719	29·747	30·103	29·734	30·277	Jan. 1–5
„ 6–10	46·1	44·2	42·9	40·9	42·2	40·7	38·8	37·4	41·6	39·4	37·9	36·8	34·3	33·4	·375	30·257	30·281	30·362	·270	30·153	·555	„ 6–10
„ 11–15	41·5	39·3	37·5	35·6	32·8	31·3	34·3	32·5	40·4	38·1	31·8	30·2	33·3	31·7	·428	·268	·255	·346	30·206	30·069	·418	„ 11–15
„ 16–20	(40·0)	(37·4)	34·6	33·1	32·1	30·9	34·7	32·4	38·6	(36·1)	30·5	29·1	31·2	29·9	·189	·031	·032	·132	29·968	29·833	·203	„ 16–20
„ 21–25	39·9	37·9	28·8	27·5	32·0	30·8	35·8	33·8	37·2	34·0	30·6	(28·6)	31·8	30·0	30·272	30·179	30·173	30·243	30·154	30·016	·386	„ 21–25
„ 26–30	47·9	45·8	42·4	40·2	41·7	39·9	40·3	38·3	40·4	38·6	31·6	29·4	25·1	24·8	29·942	29·760	29·768	29·825	29·980	29·776	(·250)	„ 26–30
Feb. 31–4	49·0	47·8	46·6	44·8	46·0	44·3	45·6	43·2	46·8	46·0	43·0	41·4	34·2	33·6	30·085	·892	·891	(·937)	30·083	·851	30·337	Feb. 31–4
„ 5–9	45·2	42·8	41·0	39·3	40·7	38·9	40·0	37·5	46·8	45·2	39·4	38·1	42·2	41·1	29·433	·240	·248	·353	29·375	·150	29·661	„ 5–9
„ 10–14	43·9	41·4	40·2	38·2	40·2	38·1	40·0	38·1	44·9	42·8	39·4	37·6	40·4	38·4	29·576	29·403	29·434	·564	29·577	29·345	·800	„ 10–14
„ 15–19	46·7	44·4	43·5	41·7	44·0	41·7	42·0	40·6	48·0	46·1	44·6	42·3	47·1	45·3	28·824	28·709	28·810	·014	28·942	28·740	·280	„ 15–19
„ 20–24	46·2	44·1	43·0	41·3	43·2	41·1	43·0	40·4	45·4	43·2	40·9	39·3	42·1	40·5	29·913	29·622	29·566	·638	29·697	29·422	·827	„ 20–24
„ †25–1	46·1	43·8	43·9	42·0	43·2	40·9	42·4	38·9	45·3	42·9	42·3	40·3	44·0	41·2	·846	·399	·223	·182	·715	·238	·773	„ †25–1
Mar. 2–6	50·2	48·4	45·1	43·4	42·5	40·7	42·2	38·9	50·2	48·3	44·5	42·6	49·8	46·5	29·605	29·254	29·175	29·209	29·640	·159	29·733	Mar. 2–6
„ 7–11	47·8	46·2	44·2	42·5	41·8	39·6	41·6	39·3	47·6	46·2	43·3	41·2	46·4	44·3	30·216	30·054	30·078	30·203	30·023	·905	30·258	„ 7–11
„ 12–16	49·3	48·0	44·8	43·3	41·8	39·9	41·1	38·8	46·9	45·6	41·1	39·2	43·6	41·5	·062	29·983	·048	·216	29·965	·869	·220	„ 12–16
„ 17–21	49·6	45·9	43·2	40·1	40·2	36·9	39·2	36·5	46·7	44·1	40·2	36·6	41·9	38·8	·022	30·019	·115	·283	·900	·922	·247	„ 17–21
„ 22–26	47·4	44·3	41·6	38·7	38·1	36·1	38·8	36·1	45·6	43·4	39·6	36·3	43·1	38·6	30·014	29·985	30·083	30·255	·861	·876	30·181	„ 22–26
„ 27–31	48·4	45·9	45·2	42·5	43·2	40·2	42·2	39·8	45·9	43·6	41·6	38·7	42·2	39·2	29·875	·671	29·688	29·824	·722	29·548	29·939	„ 27–31
April 1–5	48·9	46·2	45·7	43·2	44·3	41·6	43·4	41·2	49·3	46·9	45·6	43·1	48·2	45·3	·411	·083	·047	·145	·361	28·975	·472	April 1–5
„ 6–10	47·7	43·6	44·7	42·0	44·7	41·7	43·5	41·4	46·2	42·9	43·4	40·3	43·8	41·1	·990	·729	·701	·827	·651	29·487	·808	„ 6–10
„ 11–15	45·5	42·4	43·2	41·3	43·5	40·4	42·7	40·7	46·0	43·0	42·4	39·6	44·9	42·6	·854	·694	·738	·898	·557	·498	·794	„ 11–15
„ 16–20	50·1	47·6	48·0	45·9	48·0	44·9	47·2	44·6	50·4	48·0	48·9	45·6	51·8	47·5	·517	·375	·457	·609	·591	·382	(·868)	„ 16–20
„ 21–25	49·7	47·0	47·6	45·1	46·2	43·1	45·2	41·8	49·5	46·3	46·9	44·0	50·3	46·1	29·977	29·649	29·546	29·581	·820	·471	29·948	„ 21–25
„ 26–30	48·9	45·1	45·2	41·9	46·0	41·3	43·5	40·2	45·8	41·3	43·9	39·5	44·5	40·2	30·321	30·144	30·130	30·242	·989	·902	*30·156	„ 26–30
May 1–5	49·1	45·3	47·7	44·4	48·1	43·6	46·8	43·0	49·5	45·7	47·8	43·7	46·5	43·3	·060	29·839	29·814	29·924	·746	·603	29·919	May 1–5
„ 6–10	50·9	47·0	47·1	43·2	48·2	42·8	44·7	40·6	49·6	45·4	46·2	41·8	46·3	41·7	·183	30·005	29·983	30·100	·916	·779	30·100	„ 6–10
„ 11–15	54·6	49·7	48·7	45·0	47·1	42·7	46·0	43·1	53·8	49·8	49·5	44·8	53·6	48·8	·002	29·984	30·072	·250	·769	·791	·026	„ 11–15
„ 16–20	57·3	52·3	54·9	50·1	53·4	48·7	50·1	46·4	54·6	49·0	51·8	47·2	51·8	46·3	30·283	30·092	30·061	30·159	·982	·870	30·174	„ 16–20
„ 21–25	53·8	50·9	51·7	48·8	51·1	47·4	52·4	46·3	55·4	51·8	51·9	48·6	57·6	52·1	29·972	29·636	29·541	29·566	·858	·488	29·955	„ 21–25
„ 26–30	52·2	48·4	50·8	47·2	50·0	46·1	49·8	45·4	52·9	49·5	50·5	46·5	56·5	50·2	30·125	·848	29·808	29·894	·991	·717	30·122	„ 26–30
June 31–4	55·0	50·6	53·3	48·5	53·2	47·1	50·1	46·2	53·4	50·4	51·8	47·0	51·6	48·9	30·172	·988	30·000	30·150	·815	·729	29·985	June 31–4
„ 5–9	52·5	49·2	48·8	46·4	49·1	45·5	47·7	44·4	53·5	49·7	48·7	45·8	52·6	48·6	29·933	·591	29·490	29·552	·741	·364	·808	„ 5–9
„ 10–14	53·9	51·0	53·7	49·8	53·8	49·4	52·3	49·7	54·1	51·1	55·4	51·6	56·5	52·0	29·911	·720	·731	29·885	·762	·573	·929	„ 10–14
„ 15–19	59·0	55·5	58·8	54·5	58·8	53·1	(53·2)	(50·4)	57·0	55·1	57·7	53·4	59·4	55·9	30·017	·896	·951	30·139	·737	·669	·926	„ 15–19
„ 20–24	58·7	56·2	58·3	56·4	58·1	54·9	53·1	51·9	58·5	55·8	59·7	56·2	60·4	56·6	29·651	·459	·486	29·654	·508	·303	29·680	„ 20–24
„ 25–29	59·6	57·6	58·0	56·5	57·9	55·4	57·9	54·8	59·2	56·0	58·7	56·1	62·7	57·9	29·981	29·721	29·660	29·737	29·873	29·578	30·001	„ 25–29

NOTE.—Means which are enclosed in brackets are a little doubtful, one of the five daily means being approximate.

* Doubtful. Two of the five daily means are approximate.

† Being leap year the period February 25—March 1 comprises 6 days.

TABLE II.—PART 2.

FIVE-DAY MEANS of the DRY and WET BULB THERMOMETERS, and BAROMETER, from the continuous RECORDS at the SEVEN BRITISH OBSERVATORIES, July to December 1880.

Five-Day Periods.	THERMOMETERS.														BAROMETER.							Five-Day Periods.
	Valencia. 12 ft.		Armagh. 4 ft.		Glasgow. 7 ft.		Aberdeen. 41 ft.		Falmouth. 11 ft.		Stonyhurst. 7 ft.		Kew. 10 ft.		Valencia. 23 ft.	Armagh. 207 ft.	Glasgow. 184 ft.	Aberdeen. 83 ft.	Falmouth. 211 ft.	Stonyhurst. 361 ft.	Kew. 34 ft.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	
June 30–4	57°·7	55°·2	57°·0	54°·5	57°·2	53°·2	53°·4	51°·7	59°·0	56°·0	56°·6	53°·6	60°·1	56°·2	29·849	29·532	29·480	29·605	29·649	29·335	29·752	June 30–4
July 5–9	57·5	54·9	55·9	54·0	55·9	53·4	55·1	52·7	58·9	55·4	56·3	53·6	59·2	55·0	29·873	·542	·480	·580	·701	·373	29·830	July 5–9
,, 10–14	58·3	55·3	55·2	53·7	57·5	53·3	55·1	52·8	59·4	55·7	57·6	54·2	60·7	57·1	30·093	·863	·841	·983	·878	·648	30·036	,, 10–14
,, 15–19	59·1	56·4	57·9	55·7	58·1	55·2	55·9	53·0	61·9	58·1	60·2	57·7	64·0	60·4	29·978	·791	·794	·935	·803	·593	29·967	,, 15–19
,, 20–24	60·4	56·6	56·7	54·0	58·5	54·3	55·4	52·0	61·9	59·0	59·0	55·5	63·3	58·8	·928	·756	·757	·900	·777	·594	·968	,, 20–24
,, 25–29	60·7	57·8	58·5	56·4	57·0	54·2	55·9	52·9	61·5	59·2	59·4	56·4	63·8	59·4	·595	(·379)	·391	·527	·493	·253	·679	,, 25–29
Aug. 30–3	59·5	56·9	55·4	53·3	54·5	50·6	53·8	50·0	60·2	56·8	56·8	52·8	58·2	54·2	·779	·505	·438	·504	·588	·305	·704	Aug. 30–3
,, 4–8	60·0	57·2	58·8	56·3	58·6	55·8	59·4	56·1	61·1	58·3	59·4	56·7	61·9	58·2	29·681	29·400	29·362	29·455	·561	·259	29·671	,, 4–8
,, 9–13	64·0	61·9	(64·9)	61·6	63·7	59·5	61·4	57·8	63·1	60·0	63·1	58·7	64·3	59·4	30·180	30·003	30·010	30·116	·975	·826	30·143	,, 9–13
,, 14–18	65·3	62·5	61·6	58·9	58·8	55·8	56·5	54·1	63·8	60·8	(61·1)	(57·1)	62·3	59·0	·103	29·990	30·020	*·160	·854	·791	·072	,, 14–18
,, 19–23	63·1	59·7	(60·5)	57·2	59·5	55·8	57·4	54·8	62·0	58·5	59·7	55·8	62·8	58·4	·082	·940	29·946	·071	·817	·752	·029	,, 19–23
,, 24–28	62·6	59·7	61·1	58·3	59·0	55·6	57·2	54·9	62·1	60·3	61·2	57·7	63·5	60·1	·023	·896	·933	·076	·811	·725	·021	,, 24–28
Sept. 29–2	63·6	61·6	60·9	58·1	60·5	56·8	60·2	57·8	63·4	60·0	62·7	59·4	63·9	59·8	30·054	·891	·922	30·067	·925	·752	·097	Sept. 29–2
,, 3–7	62·7	59·1	61·3	57·4	60·4	57·1	61·4	56·5	62·2	59·6	63·1	59·1	65·4	60·1	29·975	·766	·743	29·807	·860	·645	30·060	,, 3–7
,, 8–12	58·0	55·9	56·1	†53·1	55·6	52·2	54·7	52·6	60·4	58·2	58·2	54·6	60·6	57·2	·658	*·492	·528	·684	·500	·381	29·756	,, 8–12
,, 13–17	56·7	53·4	52·7	50·6	53·3	50·2	53·8	51·6	59·1	54·0	54·8	51·6	56·7	53·8	·726	(·478)	·453	·587	·457	·205	·554	,, 13–17
,, 18–22	56·8	53·9	51·8	50·0	49·9	47·9	50·3	46·7	56·8	54·1	51·9	49·4	54·3	51·3	29·876	·561	·475	·537	·734	·365	29·835	,, 18–22
,, 23–27	59·7	58·3	58·3	56·3	56·4	54·5	56·3	53·7	58·0	56·6	56·7	54·9	61·1	58·2	30·062	29·871	29·866	29·959	29·958	·748	30·136	,, 23–27
Oct. 28–2	58·6	56·1	53·4	51·6	53·0	50·3	51·9	48·8	57·5	55·8	54·1	51·6	54·8	52·9	30·261	30·084	30·035	30·094	30·078	·880	30·260	Oct. 28–2
,, 3–7	48·3	44·8	44·9	42·7	44·9	40·7	44·3	41·8	51·8	49·3	45·8	42·6	49·8	47·8	29·653	29·523	29·535	29·655	29·255	·245	29·552	,, 3–7
,, 8–12	50·2	47·4	45·3	43·6	44·2	41·4	44·8	42·2	53·0	49·7	47·0	43·8	51·1	48·7	30·123	29·999	30·027	30·166	·728	·751	29·942	,, 8–12
,, 13–17	50·6	47·8	47·7	46·3	48·7	46·2	49·4	45·8	52·3	49·0	48·1	44·9	47·9	45·9	30·205	30·037	30·004	30·073	·991	·836	30·194	,, 13–17
,, 18–22	43·5	40·6	37·8	35·8	37·3	34·8	35·8	33·9	45·3	42·9	38·3	35·2	42·1	40·0	29·916	29·759	29·731	29·832	(·611)	·510	29·826	,, 18–22
,, 23–27	43·0	40·7	40·3	38·4	39·5	36·9	38·7	36·3	48·5	45·8	39·4	37·5	42·6	40·6	·739	·687	·678	·779	·546	·458	·805	,, 23–27
Nov. 28–1	43·4	41·0	39·8	37·8	38·9	36·2	38·7	35·7	44·3	41·8	39·2	36·3	41·0	38·6	29·984	29·703	29·622	29·695	29·695	·395	29·780	Nov. 28–1
,, 2–6	46·0	43·4	42·2	40·6	41·1	39·2	41·6	38·5	45·1	42·2	40·0	37·9	38·7	(36·5)	30·348	30·107	30·045	30·090	30·087	·917	30·270	,, 2–6
,, 7–11	50·5	48·9	45·8	44·2	44·5	42·2	42·6	(39·7)	49·2	47·2	43·2	41·3	44·1	42·1	30·179	29·875	29·773	29·811	30·025	29·695	30·153	,, 7–11
,, 12–16	50·0	48·4	45·0	43·5	40·1	38·6	39·8	37·3	52·0	50·3	44·7	43·3	50·2	48·1	29·399	·133	·102	·205	29·356	28·972	29·494	,, 12–16
,, 17–21	39·1	36·2	32·8	31·0	27·7	26·7	30·4	*28·3	39·7	36·8	32·7	30·8	35·0	33·3	·676	·537	·558	·669	·437	29·320	·616	,, 17–21
,, 22–26	49·0	46·5	43·9	41·7	40·0	38·2	41·2	39·1	49·3	46·9	41·0	39·2	43·7	41·8	29·432	·226	·244	·339	29·554	·247	29·817	,, 22–26
Dec. 27–1	50·3	48·3	46·3	44·6	45·9	43·9	44·5	41·7	50·1	47·5	46·3	44·5	45·6	43·9	30·024	29·768	29·702	29·734	30·056	·703	30·266	Dec. 27–1
,, 2–6	51·6	50·4	46·7	45·6	45·9	44·6	42·4	40·7	50·2	48·6	44·4	43·6	44·6	43·3	·243	30·044	30·009	30·071	·218	·929	·383	,, 2–6
,, 7–11	51·1	49·4	48·1	46·2	46·9	44·4	46·3	42·2	50·0	48·4	47·0	45·5	47·1	45·0	30·495	30·145	29·995	29·940	30·334	·949	30·410	,, 7–11
,, 12–16	49·3	47·7	42·5	41·1	36·3	34·0	33·5	31·5	50·0	48·3	40·3	38·4	45·6	43·3	29·928	29·616	·534	·591	29·764	·390	29·842	,, 12–16
,, 17–21	41·3	39·0	33·2	*31·7	32·2	(31·4)	33·5	31·4	43·8	41·7	33·8	31·9	38·0	36·1	·635	·319	·235	·328	·466	·180	·626	,, 17–21
,, 22–26	45·1	42·9	37·4	36·5	34·4	33·3	32·3	(31·3)	46·5	43·9	37·3	36·0	41·6	39·7	·501	·247	·178	·246	·394	·047	·541	,, 22–26
,, 27–31	40·3	38·3	33·0	32·0	34·3	32·8	30·1	(28·8)	46·6	44·6	35·2	33·9	42·2	40·9	29·606	29·397	29·368	29·454	29·391	29·131	29·562	,, 27–31

NOTE.—Means which are enclosed in brackets are a little doubtful, one of the five daily means being approximate.

* Doubtful. Two of the five daily means are approximate.

† Doubtful. Three of the five daily means are approximate.

APPENDIX I. A.

TABLE I.—MEAN MONTHLY RESULTS from the continuous RECORDS at the SEVEN BRITISH OBSERVATORIES for the Year 1880. In millimetres and degrees centigrade.

VALENCIA.

1880. MONTHS.	THERMOMETER. Means.	Extremes. Maximum. Day.	Maximum. Ther.	Minimum. Day.	Minimum. Ther.	BAROMETER. Means.	Extremes. Maximum. Day.	Maximum. Bar.	Minimum. Day.	Minimum. Bar.	VAPOUR TENSION.
	°C.	D. H.	°C.	D. H.	°C.	mm.	D. H.	mm.	D. H.	mm.	mm.
January	*6·83	1st, 3 a.m.	12·56	22nd, 9 a.m.	−0·56	767·35	21st, Noon	775·50	30th, 4 a.m.	750·84	6·17
February	7·94	18th, 2 p.m.	11·67	25th, 5 a.m.	2·17	52·23	25th, 1 a.m.	75·63	**16th, 1 p.m.**	**24·73**	6·73
March	9·17	20th, 3 p.m.	15·06	1st, 2 p.m.	2·78	60·56	8th, 10 a.m. } 11 a.m. }	73·65	2nd, 8 p.m.	38·67	7·24
April	9·17	29th, 3 p.m.	15·44	11th, 5 a.m.	3·33	58·05	30th, 9 a.m.	74·15	5th, 5 p.m.	42·43	6·75
May	11·67	15th, 3 p.m.	22·17	1st, 5 a.m.	4·78	64·61	29th, 1 a.m.	74·02	23rd, Midnt.	53·40	7·59
June	13·67	17th, 6 p.m.	22·67	10th, 5 a.m.	5·83	60·34	15th, 1 p.m.	70·60	20th, 5 a.m.	47·66	9·39
July	14·94	16th, 6 p.m.	21·83	22nd, 4 a.m.	8·83	58·94	4th, 11 p.m. } Midnt. }	68·92	27th, 10 p.m. } 11 p.m. }	47·18	10·31
August	17·11	**15th, 3 p.m.**	**25·11**	9th, 6 a.m.	10·06	61·73	10th, 10 p.m.	68·94	7th, 8 a.m.	44·94	12·19
September	15·22	3rd, 5 p.m.	22·33	18th, 2 p.m.	9·72	60·15	28th, 10 p.m.	73·09	14th, 5 a.m. } 6 a.m. }	33·31	10·71
October	8·39	1st, 3 p.m.	18·67	30th, 8 a.m.	0·50	60·46	24th, 10 p.m.	71·33	27th, 9 p.m.	32·91	6·63
November	8·67	13th, 4 a.m. } 9 a.m. }	13·56	**20th, 7 a.m.**	**−1·28**	58·15	4th, 10 a.m.	75·83	16th, 1 a.m.	28·64	6·98
December	8·06	5th, 2 p.m.	12·44	17th, 5 a.m.	0·78	759·60	**9th, 11 a.m.**	**778·02**	23rd, 9 p.m.	738·31	6·90
Annual	10·90	—	—	—	—	760·18	—	—	—	—	8·13

* Mean for one day is approximate.

ARMAGH.

	°C.	D. H.	°C.	D. H.	°C.	mm.	D. H.	mm.	D. H.	mm.	mm.
January	3·89	1st, 1 p.m.	12·22	**22nd, 2 a.m. } 3 a.m. }**	**−7·78**	763·08	**21st, 10 a.m.**	**773·70**	1st, 9 p.m.	743·07	5·16
February	6·17	4th, 2 p.m.	11·78	9th, 2 a.m.	0·11	46·32	24th, Midnt.	68·39	**16th, 8 p.m.**	**15·25**	6·07
March	6·61	31st, 2 p.m.	12·78	23rd, 7 a.m.	−2·67	56·75	8th, 11 a.m.	69·89	3rd, 3 a.m.	25·44	6·04
April	7·67	19th, 2 p.m.	14·44	16th, 0·2 a.m.	0·78	52·13	29th, 11 p.m.	69·91	5th, 5 p.m.	33·87	6·35
May	10·11	18th, 3 p.m.	20·11	8th, 5 a.m.	1·11	59·42	29th, 9 a.m.	68·01	24th, 4 a.m.	43·44	7·00
June	13·00	18th, 1 p.m.	20·33	10th, 5 a.m.	3·39	54·80	1st, 11 p.m.	66·59	21st, 6 a.m.	43·95	8·89
July	13·67	17th, 1 p.m.	20·11	21st, 5 a.m.	7·50	*52·74	4th, 11 p.m.	61·78	28th, 11 a.m.	41·10	10·08
August	†16·06	15th, 2 p.m.	23·61	2nd, 5 a.m.	8·28	57·31	11th, 11 a.m.	64·45	7th, 2 p.m.	42·00	11·17
September	13·44	**4th, 4 p.m.**	**23·89**	19th, 5 a.m.	6·28	‡54·70	28th, 9 p.m. } 10 p.m. } 11 p.m. }	68·87	14th, 11 a.m.	§40·75	9·73
October	6·28	1st, 2 p.m.	15·06	22nd, 6 a.m.	−3·17	56·48	13th, 9 p.m.	*67·50	28th, 4 a.m.	32·50	6·07
November	5·83	13th, Noon	13·39	20th, 8 a.m.	−4·44	52·26	3rd, 9 p.m.	69·38	16th, 7 a.m.	23·83	5·94
December	4·61	6th, 3 a.m.	12·22	27th, 1 a.m.	−2·94	752·67	6th, Midnt.	770·01	23rd, 11 p.m. } Midnt. }	732·57	5·66
Annual	8·95	—	—	—	—	754·89	—	—	—	—	7·35

* Mean for one day is approximate. † Means for two days are approximate. ‡ Means for three days are approximate.
§ Lowest reading recorded, trace lost for nine hours.

Table I.—Mean Monthly Results, &c.—*continued.*

GLASGOW.

1880. Months.	Thermometer.					Barometer.					Vapour Tension.
	Means.	Extremes. Maximum.		Minimum.		Means.	Extremes. Maximum.		Minimum.		
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.	
	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.
January - -	3·33	1st, 7 p.m.	12·17	21st, 7 a.m. 9 a.m.	−4·67	762·80	21st, 10 a.m.	773·04	1st, 1 a.m.	739·23	5·11
February - -	6·06	4th, 3 p.m.	11·28	9th, 9 a.m.	−0·22	45·91	24th, 10 p.m.	65·47	16th, 8 p.m.	19·75	5·89
March - -	5·11	30th, 3 p.m.	13·44	28th, 6 a.m.	−1·17	57·51	8th, 10 a.m. 11 a.m.	69·99	3rd, 4 a.m.	23·32	5·38
April - -	7·50	30th, 3 p.m.	14·22	27th, 5 a.m.	0·89	51·91	29th, 10 p.m.	70·60	5th, 5 p.m.	33·13	5·92
May - -	9·83	19th, 4 p.m.	20·67	9th, 5 a.m.	2·06	58·97	9th, 7 a.m. 8 a.m.	66·89	24th, 4 a.m.	40·85	6·45
June - -	13·00	22nd, 2 p.m.	21·94	9th, 5 a.m.	2·94	54·45	1st, 11 p.m.	68·13	7th, 1 p.m.	43·78	8·30
July - -	13·94	17th, 3 p.m.	22·89	12th, 4 a.m.	7·22	52·16	14th, 11 a.m. 1 p.m.	62·57	28th, 8 p.m.	40·04	9·29
August - -	15·39	14th, 4 p.m.	24·67	1st, 6 a.m.	6·67	57·49	12th, 7 a.m.	65·47	7th, 5 p.m.	40·95	10·21
September -	12·94	4th, 3 p.m.	25·33	20th, 5 a.m.	4·50	54·19	28th, 10 p.m.	69·07	11th, 1 a.m.	43·22	9·19
October - -	6·11	1st, 1 p.m.	15·56	20th, 8 a.m.	−4·39	55·92	11th, Midnt.	68·16	28th, 4 a.m.	35·82	5·51
November -	4·17	13th, 8 a.m.	12·39	20th, 10 a.m.	−9·33	51·40	3rd, 6 p.m. 21st, 2 a.m.	67·80	16th, 11 a.m.	24·29	5·26
December -	3·61	6th, 9 a.m.	11·39	17th, 9 a.m.	−9·17	750·74	7th, 2 a.m.	769·23	19th, 5 a.m.	726·71	5·11
Annual - -	8·42	—	—	—	—	754·45	—	—	—	—	6·80

ABERDEEN.

	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.
January - -	3·39	1st, 9 p.m.	12·39	10th, 5 a.m.	−3·00	*764·58	12th, 10 a.m.	775·93	1st, 11 p.m.	740·29	4·85
February - -	5·61	29th, 4 p.m.	11·83	9th, 6 a.m.	−2·00	48·10	24th, 10 a.m.	66·15	20th, 1 a.m.	28·79	5·56
March - -	4·94	29th, 2 p.m.	11·78	20th, 6 a.m.	−2·06	60·77	11th, 9 p.m.	72·30	1st, 7 a.m.	23·27	5·13
April - -	6·83	20th, 4 p.m.	13·61	30th, 5 a.m.	0·83	54·80	29th, 9 p.m.	73·65	5th, 3 p.m.	35·40	5·92
May - -	9·06	19th, 4 p.m.	18·44	14th, 4 a.m.	1·50	61·66	15th, 9 a.m.	70·11	24th, 9 a.m.	41·46	6·22
June - -	*11·39	28th, 2 p.m.	21·72	7th, 4 a.m.	4·89	57·75	1st, 10 p.m.	72·25	7th, 6 p.m.	44·86	8·17
July - -	12·83	25th, 2 p.m.	20·06	9th, 4 a.m.	6·56	55·36	14th, 10 a.m. 11 a.m.	67·35	29th, 4 a.m.	41·13	9·04
August - -	14·50	10th, 1 p.m.	23·89	3rd, 4 a.m.	8·89	†60·64	12th, 8 a.m. Noon	‡69·10	7th, 5 p.m. 6 p.m.	43·17	10·24
September -	13·11	3rd, 1 p.m.	24·22	19th, 5 a.m.	3·56	56·68	28th, 7 p.m.	72·45	11th, 4 a.m.	45·35	9·07
October - -	5·89	1st, 1 p.m.	16·78	20th, 3 a.m.	−2·06	58·41	11th, 9 p.m.	71·58	28th, 5 a.m.	43·57	5·51
November -	4·28	6th, 1 p.m.	12·44	21st, 6 a.m.	−9·89	53·23	21st, 4 a.m.	70·85	26th, 1 p.m.	28·10	4·92
December -	2·56	6th, 11 a.m.	12·33	27th, 9 a.m. 6 p.m. 7 p.m.	−8·89	751·98	6th, Midnt. 7th, 1 a.m.	770·34	19th, 7 a.m.	726·86	4·57
Annual - -	7·87	—	—	—	—	757·00	—	—	—	—	6·60

* Mean for one day is approximate. † Means for two days are approximate.
‡ Approximate reading, trace rather faint.

Table I.—Mean Monthly Results, &c.—*continued.*

FALMOUTH.

1880. Months.	Thermometer. Means.	Thermometer. Extremes. Maximum. Day.	Thermometer. Extremes. Maximum. Ther.	Thermometer. Extremes. Minimum. Day.	Thermometer. Extremes. Minimum. Ther.	Barometer. Means.	Barometer. Extremes. Maximum. Day.	Barometer. Extremes. Maximum. Bar.	Barometer. Extremes. Minimum. Day.	Barometer. Extremes. Minimum. Bar.	Vapour Tension.
	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.
January - -	5·11	1st, 1 p.m.	11·39	18th, 7 a.m.	−0·39	764·83	21st, 11 a.m.	771·74	18th, 6 a.m. } 7 a.m.	754·95	5·38
February - -	7·89	19th, 2 p.m.	11·72	25th, 5 a.m.	1·39	50·86	25th, 10 a.m.	70·01	16th, 10 a.m.	17·11	6·90
March - -	8·39	5th, 1 p.m.	13·00	30th, 2 a.m.	2·61	57·77	8th, 11 a.m.	66·81	31st, 1 p.m.	39·28	7·00
April - -	8·83	3rd, 1 p.m.	14·44	30th, 6 a.m.	3·06	53·38	30th, 8 a.m. } 9 a.m.	67·27	6th, 4 a.m.	38·85	6·58
May - -	11·44	15th, 6 p.m.	19·44	2nd, 6 a.m.	4·89	58·81	29th, 8 a.m. } 9 a.m.	69·91	3rd, 3 p.m. } 5 p.m.	48·93	7·49
June - -	13·44	22nd, 3 p.m.	19·94	5th, 4 a.m.	7·50	55·21	27th, 10 p.m.	64·63	20th, 5 a.m.	44·31	9·32
July - -	15·78	17th, 4 p.m.	21·50	16th, ?	*10·50	54·65	5th, 8 a.m. } 10 a.m. } 11 a.m.	63·31	26th, 9 a.m.	41·26	10·69
August - -	16·89	13th, 2 p.m.	22·94	7th, 2 a.m.	13·17	56·53	10th, 9 a.m. } 10 a.m.	64·96	7th, 2 p.m.	42·12	11·76
September -	15·06	1st, 1 p.m.	21·67	19th, Midnt.	10·39	56·29	28th, 11 a.m.	68·37	14th, 5 p.m.	33·06	10·89
October -	9·89	2nd, Noon	16·67	30th, 6 a.m.	2·50	†52·92	14th, 10 a.m.	66·79	28th, 5 a.m.	24·14	7·29
November -	8·61	14th, Noon	13·72	20th, 9 a.m.	1·28	55·79	4th, 11 a.m.	68·64	18th, 3 p.m.	24·93	6·83
December -	8·83	5th, 2 p.m.	12·22	18th, 2 a.m.	2·44	756·07	8th, 10 a.m.	773·60	29th, 1 p.m.	732·93	7·26
Annual - -	10·85	—	—	—	—	756·09	—	—	—	—	8·12

* Corrected reading of Phillips' minimum thermometer, obtained from Weather Sheet. † Mean for one day is approximate.

STONYHURST.

	° C.	D. H.	° C.	D. H.	° C.	mm.	D. H.	mm.	D. H.	mm.	mm.
January - -	1·56	31st, 2 p.m.	11·11	20th, 7 a.m.	−7·06	760·13	21st, 10 a.m. } 11 a.m.	768·28	1st, 1 a.m.	740·37	4·26
February - -	5·28	19th, 2 p.m.	10·50	6th, 5 a.m.	−3·39	43·93	24th, 10 p.m.	62·67	16th, 4 p.m.	16·72	5·76
March - -	5·39	30th, 3 p.m.	13·00	20th, 6 a.m.	−2·33	53·91	8th, 10 a.m.	66·03	3rd, 5 a.m.	24·34	5·31
April - -	7·33	19th, 4 p.m.	14·22	30th, 5 a.m.	−0·44	48·07	29th, Midnt.	65·54	5th, Midnt. } 6th, 3 a.m.	31·59	5·87
May - -	9·78	20th, 1 p.m.	19·33	7th, ?	*0·50	54·60	29th, Noon	63·54	24th, 5 a.m. } 6 a.m.	41·03	6·53
June - -	13·17	22nd, Noon	21·11	5th, 4 a.m.	2·83	49·87	1st, 11 a.m.	60·15	7th, 8 a.m.	39·53	8·71
July - -	14·44	17th, 2 p.m.	23·56	21st, 2 a.m.	9·33	48·17	5th, 8 a.m. } 9 a.m.	55·67	29th, 11 a.m. } Noon	38·77	9·90
August - -	†16·00	11th, 3 p.m. } 14th, 3 p.m.	25·00	10th, 5 a.m.	8·89	52·87	10th, Midnt.	‡60·21	7th, 5 p.m.	34·58	10·49
September -	13·94	4th, 1 p.m.	25·89	19th, 11 p.m.	5·61	50·56	28th, Midnt.	64·83	15th, 4 a.m.	33·84	9·75
October - -	6·56	1st, 1 p.m.	15·78	20th, 4 a.m.	−4·00	50·08	14th, 8 a.m.	62·17	28th, 6 a.m.	23·46	5·68
November -	5·00	13th, 10 a.m.	12·78	22nd, 9 a.m.	−6·11	48·86	21st, 4 a.m. } 5 a.m.	64·56	16th, 1 p.m.	12·76	5·51
December -	4·33	6th, Noon } 7th, 11 a.m.	10·17	31st, 9 a.m.	−2·72	747·84	7th, 11 a.m.	766·50	29th, 8 p.m.	722·97	5·51
Annual - -	8·57	—	—	—	—	750·74	—	—	—	—	6·94

* Corrected reading of Phillips' minimum thermometer, obtained from Weather Sheet. † Mean for one day is approximate.
‡ Approximate reading, trace rather faint.

Table I.—Mean Monthly Results, &c.—*continued.*

KEW.

1880. Months.	Thermometer.					Barometer.					Vapour Tension.
	Means.	Extremes.				Means.	Extremes.				
		Maximum.		Minimum.			Maximum.		Minimum.		
		Day.	Ther.	Day.	Ther.		Day.	Bar.	Day.	Bar.	
	°C.	D. H.	°C.	D. H.	°C.	mm.	D. H.	mm.	D. H.	mm.	mm.
January	0·67	1st, 1 p.m.	12·78	27th, 10 p.m. 28th, 0 20 a.m.	−7·28	*770·80	7th, 10 a.m.	778·44	1st, 1 a.m.	755·89	4·19
February	5·50	20th, 3 p.m.	11·78	2nd, 7 a.m.	−3·89	56·24	25th, 9 a.m.	73·24	17th, 7 a.m.	31·23	5·89
March	6·94	25th, 3 p.m.	15·89	29th, 7 a.m.	−2·39	63·86	8th, 10 a.m.	74·02	3rd, 2 a.m. 3 a.m. 4 a.m.	42·15	5·81
April	8·50	19th, 3 p.m.	18·11	8th, 5 a.m.	1·50	†57·95	30th, 7 a.m.	72·33	6th, 5 a.m.	42·56	6·24
May	11·06	26th, 2 p.m.	‡27·22	2nd, 5 a.m.	0·11	63·29	29th, 8 a.m.	73·39	27th, 6 a.m.	53·07	6·78
June	14·28	29th, 5 p.m.	24·44	5th, 4 a.m.	3·00	58·86	27th, 10 p.m. 11 p.m.	67·12	7th, 1 p.m.	50·74	9·22
July	16·44	15th, 6 p.m.	24·94	31st, 5 a.m.	9·22	58·53	5th, 8 a.m.	66·00	26th, 5 p.m.	47·08	10·66
August	17·00	28th, 3 p.m.	§25·33	3rd, 4 a.m.	9·83	61·00	10th, 8 a.m. 10 a.m.	69·02	7th, 9 p.m.	40·85	11·07
September	15·28	4th, 2 p.m.	28·89	20th, 4 a.m.	6·67	60·66	29th, 10 a.m.	74·00	15th, 4 a.m.	39·41	10·34
October	8·06	7th, 3 p.m.	17·83	24th, 7 a.m.	−0·72	58·23	14th, 10 a.m.	72·02	28th, 10 a.m.	29·73	6·80
November	5·94	13th, Noon	14·17	22nd, 8 a.m.	−3·78	60·41	21st, 5 a.m.	73·50	16th, 2 p.m.	29·00	5·81
December	6·28	10th, 2 p.m.	13·06	22nd, 1 a.m.	−3·33	759·48	7th, 11 p.m.	778·27	29th, 8 p.m.	737·45	6·14
Annual	9·66	—	—	—	—	760·78	—	—	—	—	7·41

* Mean for one day is approximate.
† Means for three days are approximate.
‡ Approximate reading, trace very faint.
§ Probable reading.

TABLE II.—PART 1.

FIVE-DAY MEANS of the DRY and WET BULB THERMOMETERS, and BAROMETER, from the continuous Records at the SEVEN BRITISH OBSERVATORIES, January to June 1880.

Five-Day Periods.	THERMOMETERS. Valencia. 3·66 m. Dry.	Valencia. 3·66 m. Wet.	Armagh. 1·22 m. Dry.	Armagh. 1·22 m. Wet.	Glasgow. 2·13 m. Dry.	Glasgow. 2·13 m. Wet.	Aberdeen. 12·50 m. Dry.	Aberdeen. 12·50 m. Wet.	Falmouth. 3·35 m. Dry.	Falmouth. 3·35 m. Wet.	Stonyhurst. 2·13 m. Dry.	Stonyhurst. 2·13 m. Wet.	Kew. 3·05 m. Dry.	Kew. 3·05 m. Wet.	BAROMETER. Valencia. 7·01 m.	Armagh. 69·09 m.	Glasgow. 56·08 m.	Aberdeen. 26·82 m.	Falmouth. 64·81 m.	Stonyhurst. 110·08 m.	Kew. 10·36 m.	Five-Day Periods.
	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	
Jan. 1–5	9·50	8·28	7·94	7·11	7·67	6·78	6·28	4·89	8·83	7·94	6·94	6·00	6·44	5·50	764·35	756·99	754·85	755·56	764·61	755·23	769·02	Jan. 1–5
„ 6–10	7·83	6·78	6·06	4·94	5·67	4·83	3·78	3·00	5·33	4·11	3·28	2·67	1·28	0·78	71·51	68·52	69·13	71·18	68·84	65·88	76·09	„ 6–10
„ 11–15	5·28	4·06	3·06	2·00	0·44	−0·39	1·28	0·28	4·67	3·39	−0·11	−1·00	0·72	−0·17	72·85	68·79	68·47	70·77	67·22	63·74	72·60	„ 11–15
„ 16–20	(4·44)	(3·00)	1·44	0·61	0·06	−0·61	1·50	0·22	3·67	(2·28)	−0·83	−1·61	−0·44	−1·17	66·79	62·78	62·80	65·34	61·17	57·75	67·15	„ 16–20
„ 21–25	4·39	3·28	−1·78	−2·50	0·00	−0·67	2·11	1·00	2·89	1·11	−0·78	(−1·89)	−0·11	−1·11	68·89	66·53	66·38	68·16	65·90	62·39	71·79	„ 21–25
„ 26–30	8·83	7·67	5·78	4·56	5·39	4·39	4·61	3·50	4·67	3·67	−0·22	−1·44	−3·83	−4·00	60·51	55·89	56·09	57·54	61·48	56·29	(68·34)	„ 26–30
Feb. 31–4	9·44	8·78	8·11	7·11	7·78	6·83	7·56	6·22	8·22	7·78	6·11	5·22	1·22	0·89	64·15	59·24	59·22	(60·39)	64·10	58·21	70·55	Feb. 31–4
„ 5–9	7·33	6·00	5·00	4·06	4·83	3·83	4·44	3·06	8·22	7·33	4·11	3·39	5·67	5·06	47·59	42·68	42·88	45·56	46·11	40·40	53·38	„ 5–9
„ 10–14	6·61	5·22	4·56	3·44	4·56	3·39	4·44	3·39	7·17	6·00	4·11	3·11	4·67	3·56	51·21	46·83	47·61	50·91	51·24	45·35	56·91	„ 10–14
„ 15–19	8·17	6·89	6·39	5·39	6·67	5·39	5·56	4·78	8·89	7·83	7·00	5·72	8·39	7·39	31·86	29·20	31·76	36·94	35·11	29·98	43·70	„ 15–19
„ 20–24	7·89	6·72	6·11	5·17	6·22	5·06	6·11	4·67	7·44	6·22	4·94	4·06	5·61	4·72	59·78	52·38	50·96	52·79	54·29	47·30	57·59	„ 20–24
„ †25–1	7·83	6·56	6·61	5·56	6·22	4·94	5·78	3·83	7·39	6·06	5·72	4·61	6·67	5·11	58·07	46·72	42·25	41·21	54·75	42·63	56·22	„ †25–1
Mar. 2–6	10·11	9·11	7·28	6·33	5·83	4·83	5·67	3·83	10·11	9·06	6·94	5·89	9·89	8·06	51·96	43·04	41·03	41·90	52·84	40·63	55·21	Mar. 2–6
„ 7–11	8·78	7·89	6·78	5·83	5·44	4·22	5·33	4·06	8·67	7·89	6·28	5·11	8·00	6·83	67·47	63·36	63·96	67·15	62·57	59·58	68·54	„ 7–11
„ 12–16	9·61	8·89	7·11	6·28	5·44	4·39	5·06	3·78	8·28	7·56	5·06	4·00	6·44	5·28	63·56	61·56	63·20	67·47	61·10	58·66	67·57	„ 12–16
„ 17–21	9·78	7·72	6·22	4·50	4·56	2·72	4·00	2·50	8·17	6·72	4·56	2·56	5·50	3·78	62·54	62·47	64·91	69·18	59·45	60·00	68·26	„ 17–21
„ 22–26	8·56	6·83	5·33	3·72	3·39	2·28	3·78	2·28	7·56	6·33	4·22	2·39	6·17	3·67	62·34	61·61	64·10	68·47	58·46	58·83	66·59	„ 22–26
„ 27–31	9·11	7·72	7·33	5·83	6·22	4·56	5·67	4·33	7·72	6·44	5·33	3·72	5·67	4·00	58·81	53·63	54·06	57·51	54·92	50·50	60·44	„ 27–31
April 1–5	9·39	7·89	7·61	6·22	6·83	5·33	6·33	5·11	9·61	8·28	7·56	6·17	9·00	7·39	47·03	38·70	37·78	40·27	45·76	35·95	48·57	April 1–5
„ 6–10	8·72	6·44	7·06	5·56	7·06	5·39	6·39	5·22	7·89	6·06	6·33	4·61	6·56	5·06	61·73	55·10	54·40	57·59	53·13	48·96	57·11	„ 6–10
„ 11–15	7·50	5·78	6·22	5·17	6·39	4·67	5·94	4·83	7·78	6·11	5·78	4·22	7·17	5·89	58·28	54·21	55·33	59·39	50·74	49·23	56·75	„ 11–15
„ 16–20	10·06	8·67	8·89	7·72	8·89	7·17	8·44	7·00	10·22	8·89	9·39	7·56	11·00	8·61	49·72	46·11	48·20	52·06	51·60	46·29	(58·63)	„ 16–20
„ 21–25	9·83	8·33	8·67	7·28	7·89	6·17	7·33	5·44	9·72	7·94	8·28	6·67	10·17	7·83	61·40	53·07	50·45	51·35	57·41	48·55	60·66	„ 21–25
„ 26–30	9·39	7·28	7·33	5·50	7·78	5·17	6·39	4·56	7·67	5·17	6·61	4·17	6·94	4·56	67·35	65·64	65·29	68·13	61·71	59·50	*65·95	„ 26–30
May 1–5	9·50	7·39	8·72	6·89	8·94	6·44	8·22	6·11	9·72	7·61	8·78	6·50	8·06	6·28	63·51	57·90	57·26	60·05	55·53	51·91	59·93	May 1–5
„ 6–10	10·50	8·33	8·39	6·22	9·00	6·00	7·06	4·78	9·78	7·44	7·89	5·44	7·94	5·39	66·64	62·12	61·56	64·53	59·85	56·37	64·53	„ 6–10
„ 11–15	12·56	9·83	9·28	7·22	8·39	5·94	7·78	6·17	12·11	9·89	9·72	7·11	12·00	9·33	62·04	61·58	63·81	68·34	56·12	56·68	62·64	„ 11–15
„ 16–20	14·06	11·28	12·72	10·06	11·89	9·28	10·06	8·00	12·56	9·44	11·00	8·44	11·00	7·94	69·18	64·32	63·54	66·03	61·53	58·68	66·40	„ 16–20
„ 21–25	12·11	10·50	10·94	9·33	10·61	8·56	11·33	7·94	13·00	11·00	11·06	9·22	14·22	11·17	61·27	52·74	50·33	50·96	58·38	48·98	60·85	„ 21–25
„ 26–30	11·22	9·11	10·44	8·44	10·00	7·83	9·89	7·44	11·61	9·72	10·28	8·06	13·61	10·11	65·16	58·12	57·11	59·29	61·76	54·80	65·08	„ 26–30
June 31–4	12·78	10·33	11·83	9·17	11·78	8·39	10·06	7·89	11·89	10·22	11·00	8·33	10·89	9·39	66·35	61·68	61·99	65·80	57·29	55·10	61·61	June 31–4
„ 5–9	11·39	9·56	9·33	8·00	9·50	7·50	8·72	6·89	11·94	9·83	9·28	7·67	11·44	9·22	60·29	51·60	49·03	50·61	55·41	45·83	57·11	„ 5–9
„ 10–14	12·17	10·56	12·06	9·89	12·11	9·67	11·28	9·83	12·28	10·61	13·00	10·89	13·61	11·11	59·73	54·87	55·16	59·07	55·94	51·14	60·18	„ 10–14
„ 15–19	15·00	13·06	14·89	12·50	14·89	11·72	(11·78)	(10·22)	13·89	12·83	14·28	11·89	15·22	13·28	62·42	59·34	60·75	65·52	55·31	53·58	60·10	„ 15–19
„ 20–24	14·83	13·44	14·61	13·56	14·50	12·72	11·72	11·06	14·72	13·22	15·39	13·44	15·78	13·67	53·13	48·25	48·93	53·20	49·49	44·29	53·86	„ 20–24
„ 25–29	15·33	14·22	14·44	13·61	14·39	13·00	14·39	12·67	15·11	13·33	14·83	13·39	17·06	14·39	761·51	754·90	753·35	755·31	758·76	751·26	762·02	„ 25–29

NOTE.—Means which are enclosed in brackets are a little doubtful, one of the five daily means being approximate.

* Doubtful. Two of the five daily means are approximate.

† Being leap year, the period February 25—March 1 comprises 6 days.

TABLE II.—PART 2.

FIVE-DAY MEANS of the DRY and WET BULB THERMOMETERS, and BAROMETER, from the continuous RECORDS at the SEVEN BRITISH OBSERVATORIES, July to December 1880.

Five-Day Periods.	THERMOMETERS.														BAROMETER.							Five-Day Periods.
	Valencia. 3·66 m.		Armagh. 1·22 m.		Glasgow. 2·13 m.		Aberdeen. 12·50 m.		Falmouth. 3·35 m.		Stonyhurst. 2·18 m.		Kew. 3·05 m.		Valencia. 7·01 m.	Armagh. 63·09 m.	Glasgow. 56·08 m.	Aberdeen. 26·52 m.	Falmouth. 64·31 m.	Stonyhurst. 110·08 m.	Kew. 10·36 m.	
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.								
	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	° C.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	
June 30–4	14·28	12·89	13·89	12·50	14·00	11·78	11·89	10·94	15·00	13·33	13·67	12·00	15·61	13·44	758·15	750·10	748·78	751·96	753·07	745·10	755·69	June 30–4
July 5–9	14·17	12·72	13·28	12·22	13·28	11·89	12·83	11·50	14·94	13·00	13·50	12·00	15·11	12·78	58·76	50·35	48·78	51·32	54·40	46·06	57·67	July 5–9
„ 10–14	14·61	12·94	12·89	12·06	14·17	11·83	12·83	11·56	15·22	13·17	14·22	12·33	15·94	13·94	64·35	58·51	57·95	61·56	58·88	53·04	62·90	„ 10–14
„ 15–19	15·06	13·56	14·39	13·17	14·50	12·89	13·28	11·67	16·61	14·50	15·67	14·28	17·78	15·78	61·42	56·68	56·75	60·34	56·99	51·65	61·15	„ 15–19
„ 20–24	15·78	13·67	13·72	12·22	14·72	12·39	13·00	11·11	16·61	15·00	15·00	13·06	17·39	14·89	60·15	55·79	55·82	59·45	56·32	51·67	61·17	„ 20–24
„ 25–29	15·94	14·33	14·72	13·56	13·89	12·33	13·28	11·61	16·39	15·11	15·22	13·56	17·67	15·22	51·70	(46·21)	46·52	49·97	49·11	43·02	53·83	„ 25–29
Aug. 30–3	15·28	13·83	13·00	11·83	12·50	10·33	12·11	10·00	15·67	13·78	13·78	11·56	14·56	12·33	56·37	49·42	47·71	49·39	51·52	44·34	54·47	Aug. 30–3
„ 4–8	15·56	14·00	14·89	13·50	14·78	13·22	15·22	13·39	16·17	14·61	15·22	13·72	16·61	14·56	53·89	46·75	45·78	48·15	50·84	43·17	53·63	„ 4–8
„ 9–13	17·78	16·61	(18·28)	16·44	17·61	15·28	16·33	14·33	17·28	15·56	17·28	14·83	17·94	15·22	66·56	62·07	62·24	64·93	61·35	57·56	65·62	„ 9–13
„ 14–18	18·50	16·94	16·44	14·94	14·89	13·22	13·61	12·28	17·67	16·00	(16·17)	(13·94)	16·83	15·00	64·61	61·73	62·49	66·05*	58·28	56·68	63·81	„ 14–18
„ 19–23	17·28	15·39	(15·83)	14·00	15·28	13·22	14·11	12·67	16·67	14·72	15·39	13·22	17·11	14·67	64·07	60·46	60·61	63·79	57·34	55·69	62·72	„ 19–23
„ 24–28	17·00	15·39	16·17	14·61	15·00	13·11	14·00	12·72	16·72	15·72	16·22	14·28	17·50	15·61	62·57	59·34	60·29	63·91	57·19	55·00	62·52	„ 24–28
Sept. 29–2	17·56	16·44	16·06	14·50	15·83	13·78	15·67	14·33	17·44	15·56	17·06	15·22	17·72	15·44	63·36	59·22	60·00	63·69	60·08	55·69	64·45	Sept. 29–2
„ 3–7	17·06	15·06	16·28	14·11	15·78	13·94	16·33	13·61	16·78	15·33	17·28	15·06	18·56	15·61	61·35	56·04	55·46	57·09	58·43	52·97	63·51	„ 3–7
„ 8–12	15·00	13·28	13·39	11·72†	13·11	11·22	12·61	11·44	15·78	14·56	14·56	12·56	15·89	14·00	53·30	49·08*	49·99	53·96	49·29	46·27	55·79	„ 8–12
„ 13–17	13·72	11·89	11·50	10·33	11·83	10·11	12·11	10·89	13·94	12·22	12·67	10·89	13·72	12·11	55·02	(48·72)	48·10	51·50	48·20	41·80	50·66	„ 13–17
„ 18–22	13·78	12·17	11·00	10·00	9·94	8·83	10·17	8·17	13·78	12·28	11·06	9·67	12·39	10·72	58·83	50·84	48·65	50·23	55·23	45·86	57·80	„ 18–22
„ 23–27	15·39	14·61	14·61	13·50	13·56	12·50	13·50	12·06	14·44	13·67	13·72	12·72	16·17	14·56	63·56	58·71	58·58	60·95	60·92	55·58	65·44	„ 23–27
Oct. 28–2	14·78	13·39	11·89	10·89	11·67	10·17	11·06	9·33	14·17	13·22	12·28	10·89	12·67	11·61	68·62	64·12	62·88	64·37	63·96	58·94	68·59	Oct. 28–2
„ 3–7	9·06	7·11	7·17	5·94	7·17	4·83	6·83	5·44	11·00	9·61	7·67	5·89	9·89	8·78	53·18	49·87	50·18	53·23	43·07	42·81	50·61	„ 3–7
„ 8–12	10·11	8·56	7·39	6·44	6·78	5·22	7·11	5·67	11·67	9·83	8·33	6·56	10·61	9·28	65·11	61·96	62·67	66·20	55·07	55·67	60·51	„ 8–12
„ 13–17	10·33	8·78	8·72	7·94	9·28	7·89	9·67	7·67	11·28	9·44	8·94	7·17	8·83	7·72	67·20	62·93	62·09	63·84	61·76	57·82	66·91	„ 13–17
„ 18–22	6·39	4·78	3·22	2·11	2·94	1·56	2·11	1·06	7·39	6·06	3·50	1·78	5·61	4·44	59·85	55·87	55·16	57·72	(52·11)	49·54	57·56	„ 18–22
„ 23–27	6·11	4·83	4·61	3·56	4·17	2·72	3·72	2·39	9·17	7·67	4·11	3·06	5·89	4·78	55·36	54·04	53·80	56·37	50·45	48·22	57·04	„ 23–27
Nov. 28–1	6·33	5·00	4·33	3·22	3·83	2·33	3·72	2·06	6·83	5·44	4·00	2·39	5·00	3·67	61·58	54·45	52·38	54·26	54·24	46·62	56·40	Nov. 28–1
„ 2–6	7·78	6·33	5·67	4·78	5·06	4·00	5·33	3·61	7·28	5·67	4·44	3·28	3·72	(2·50)	70·82	64·71	63·13	64·27	64·20	59·88	68·84	„ 2–6
„ 7–11	10·28	9·39	7·67	6·78	6·94	5·67	5·89	(4·28)	9·56	8·44	6·22	5·17	6·72	5·61	66·53	58·81	56·22	57·19	62·62	54·24	65·88	„ 7–11
„ 12–16	10·00	9·11	7·22	6·39	4·50	3·67	4·33	2·94	11·11	10·17	7·06	6·28	10·11	8·94	46·72	39·97	39·18	41·80	45·63	35·87	49·13	„ 12–16
„ 17–21	3·94	2·33	0·44	−0·56	−2·39	−2·94	−0·89	−2·06*	4·28	2·67	0·39	−0·67	1·67	0·72	53·75	50·23	50·76	53·58	47·69	44·71	52·23	„ 17–21
„ 22–26	9·44	8·06	6·61	5·39	4·44	3·44	5·11	3·94	9·61	8·28	5·00	4·00	6·50	5·44	47·56	42·32	42·78	45·20	50·66	42·86	57·34	„ 22–26
Dec. 27–1	10·17	9·06	7·94	7·00	7·72	6·61	6·94	5·39	10·06	8·61	7·94	6·94	7·56	6·61	62·59	56·09	54·42	55·23	63·41	54·45	68·74	Dec. 27–1
„ 2–6	10·89	10·22	8·17	7·56	7·72	7·00	5·78	4·83	10·11	9·22	6·89	6·44	7·00	6·28	68·16	63·10	62·22	63·79	67·52	60·18	71·72	„ 2–6
„ 7–11	10·61	9·67	8·94	7·89	8·28	6·89	7·94	5·67	10·00	9·11	8·33	7·50	8·39	7·22	74·56	65·67	61·86	60·46	70·47	60·69	72·40	„ 7–11
„ 12–16	9·61	8·72	5·83	5·06	2·39	1·11	0·83	−0·28	10·00	9·06	4·61	3·56	7·56	6·28	60·15	52·23	50·15	51·60	55·99	46·49	57·97	„ 12–16
„ 17–21	5·17	3·89	0·67	−0·17*	0·11	(−0·33)	0·83	−0·33	6·56	5·39	1·00	−0·06	3·33	2·28	52·72	44·69	42·56	44·91	48·42	41·16	52·48	„ 17–21
„ 22–26	7·28	6·06	3·00	2·50	1·33	0·72	0·17	(−0·39)	8·06	6·61	2·94	2·22	5·33	4·28	49·32	42·86	41·10	42·83	46·59	37·78	50·33	„ 22–26
„ 27–31	4·61	3·50	0·56	0·00	1·28	0·44	−1·06	(−1·78)	8·11	7·00	1·78	1·06	5·67	4·94	75·98	74·67	74·93	74·812	74·652	73·992	75·086	„ 27–31

NOTE.—Means which are enclosed in brackets are a little doubtful, one of the five daily means being approximate.

* Doubtful. Two of the five daily means are approximate.

† Doubtful. Three of the five daily means are approximate.

APPENDIX II.

REPORT on EXPERIMENTS made at the KEW OBSERVATORY with THERMOMETER SCREENS of different PATTERNS during 1879, 1880, and 1881, by G. M. WHIPPLE, Superintendent.

WITH the object of supplementing the discussion of the observations on the influence of height upon thermometer readings, on vapour tension, and on humanity, published as Appendix III. to the Quarterly Weather Report for 1876, and those made at Strathfield Turgiss and published as Appendix II. to the Quarterly Weather Report, 1879, a scheme of observations was organised, at the request of the Meteorological Council, at the Kew Observatory, with a view of comparing the effect upon temperature of thermometer screens generally used in this country with that of the pattern devised by Dr. H. Wild for use at the Russian stations.

In order to carry out this scheme I fitted up the two screens on the lawn attached to the Kew Observatory, and arranged for the making of a series of observations upon thermometers placed in them.

The screens were erected and observations commenced in June 1879, and the readings were carried on interruptedly until November 1881.

The Stevenson's screen employed was one of the ordinary pattern adopted for use by the Meteorological Office at its stations, and was fixed on four wooden legs, with its bottom 4 feet above the level of the turf over which it stood. In this screen the bulbs of the dry and wet bulb thermometers stood 4 feet 4 inches above the grass, that of the maximum thermometer being a little higher and that of the minimum slightly lower.

The screen was freely exposed on all sides, but the north, where it was slightly sheltered by the *Wild* screen, being in the centre of the lawn, 44 yards to the south-west of the observatory, and 16 yards due south of the experimental house.

The *Wild* screen, which was placed 2 yards to the north of the above screen, was formed of two concentric zinc cylinders, separated by an air space placed in a lofty, roomy, single-louvre-boarded screen, with a close double roof.

This was fitted up in accordance with Dr. Wild's description and drawings, as published in the *Repertorium für Meteorologie, Band VI., Heft* 2, p. 6, the hygrometer bulbs being 12 feet above ground.

Two photographs are appended to this report, p. [16], giving the aspect of the two screens, as seen from the north (Fig. 1) and from the south-west (Fig. 2).

Each screen contained four thermometers of the patterns usually supplied to observers in connexion with the Meteorological Office, being a dry bulb, a wet bulb, a Negretti maximum, and a Rutherford's minimum.

Readings were made by the junior assistants of the Observatory daily at 9 a.m. and at 9 p.m. The maximum and minimum thermometers were also set and read at 9 p.m.

The general condition of the weather was noted at the time of each observation.

In order to render the comparisons of screens as serviceable as possible, the tabulated readings of the thermograph curves for 9 a.m. and 9 p.m. were also contrasted with the observations, whilst the readings of the maximum and minimum thermometers in the thermograph screen were noted and compared as well.

The differences found to exist between these values are not to be entirely attributed to the screens, for the observations being made in "extra office" hours, efficient supervision could not be exercised over the observers, and it is believed that the screen observations were not made with so much punctuality as would have been advisable for the exact prosecution of the experiment.

As regards the maximum and minimum readings an element of uncertainty is also introduced into the comparison, from the fact that the instruments in the Stevenson and Wild screens were read and set an hour earlier in the evening than those in thermograph, the latter being always re-adjusted at 10 p.m.

Owing to the limited sum available for the discussion of the observations, the Council decided that they should not be treated as a whole, but that of the 28 months' observations a selection should be made of readings taken under different types of weather, and these only discussed.

The types named by the Council for treatment were as follows, and may be considered as fairly exhaustive:—

Calm and windy days.
Overcast and clear days.
Dry and humid days.

In selecting days of these different kinds of weather, the following arbitrary rules were adopted:—

For calm weather, days were selected when the average velocity of the wind in the 24 hours was not greater than five miles per hour.

In windy days the average hourly velocity equalled or exceeded 17 miles.

Overcast and clear observations were selected generally in accordance with the observer's notes at the time.

Dry days were those usually noted by the observers as "fine and bright," whilst humid observations were chosen from days when either continuous rain or fog prevailed. The latter classification was not an altogether satisfactory one, but to have separated the two classes of phenomena would have materially increased the labour of reduction.

As a rule, about three days of each kind were selected for discussion, when possible, from each month's observations.

The 9 a.m. and 9 p.m. observations have been treated independently, as have also the maximum and minimum temperatures and the daily ranges.

The hygrometric tables give the values of the tension of aqueous vapour, and of the relative humidity.

These have been computed from the simultaneous readings of the dry and wet bulb thermometers by means of the hygrometrical tables based on Glaisher's tables, 5th edition (printed for private circulation by authority of the Meteorological Committee, 1876).

The errors of all the thermometers were determined both before and during the progress of the experiments, and all the readings were corrected before they were entered in the journal.

The results of the comparisons are embodied in Tables numbered I. to XXIII., summaries of which (with the exception of Tables XXII. and XXIII.) are appended to this Report. The original tables, being too bulky for printing, are, with the observations themselves, preserved in the archives of the Meteorological Office.

These records are all missing
Mr. R. H. Curtis writes Dec 5. 1913 that he knows nothing of their whereabouts
[illegible]
Dec 20/13

The contents of the Tables are as follows:—

Table I. contains the observations of the dry-bulb thermometer in Stevenson's, Wild's, and the thermograph screens at 9 a.m. on 515 days, arranged according to weather and seasons.

The mean value is given for the Stevenson and the variations from this mean for the other screens. The extreme variations are also noted.

Table II. contains readings, means and extremes of the dry-bulb thermometer in the three screens at 9 p.m. on 568 days, similarly arranged to Table I.

Table III. contains the values of the vapour tension and relative humidity of the air as derived from observations of both dry and wet-bulb thermometers in the Stevenson, Wild, and thermograph screens at 9 a.m. on 440 days.

Table IV. contains the similar values for 9 p.m. on 461 days of observation.

Table V. contains comparisons of the readings of the maximum and minimum thermometers in the Stevenson's, Wild's, and thermograph screens for 475 days of observation.

Table VI. is an abstract of the 9 a.m. dry-bulb observations, giving the mean values of the air temperatures in the Stevenson's screen, and the differences observed in the other two screens under each different class of weather.

Table VII. is an abstract of the same series of observations, grouped according to seasons, together with a summary for the year.

Table VIII. contains abstracts of the 9 p.m. air temperatures, arranged under the various weather headings.

Table IX. is a similar abstract, the means being grouped in seasons; it also comprises the annual table.

Table X. represents the abstracts of the values of the mean and extreme tension of aqueous vapour in the three screens, computed for the 9 a.m. observations and distributed under different classes of weather.

Table XI. is a similar table of the 9 a.m. vapour tensions, arranged in seasons, together with the yearly summary.

Table XII. is an abstract of vapour tension values at 9 p.m., arranged as in Table X.

Table XIII. contains the same values distributed as in Table XI.

Table XIV. is an abstract of the values of the relative humidity of the air in the three screens, as derived from the 9 a.m. readings classed under weather headings.

Table XV. gives the relative humidity values at 9 a.m., classed under seasons and year.

Table XVI. contains the 9 p.m. relative humidity observations, treated as in Table XIV.

Table XVII. the same observations treated as in Table XV.

Table XVIII. shows the mean values of the maximum and minimum temperatures, and the daily range in the three screens under different conditions of weather.

Table XIX. gives the maxima, minima, and daily ranges in different seasons.

Table XX. shows the mean daily temperature, as derived from the means of the 9 a.m. and 9 p.m. observations, maximum and minimum readings, under various types of weather.

Table XXI. contains the same means distributed according to seasons.

Table XXII. is an abstract of Table XX.

Table XXIII. is an abstract of Table XXI.

Conclusions.—From the above tables the following conclusions may be drawn: That the mean daily temperature given by a thermometer in a Stevenson's screen only differs from that indicated by a thermometer in a Wild's screen by 0°·1 and from that given by the thermograph by 0°·4.

The greatest differences between the readings of the thermometers in the different screens are found to exist in calm weather and in autumn, and in windy weather the differences are very small.

The computation of the tables has been made with the assistance of Mr. T. W. Baker, Chief Assistant at this Observatory, who has also chec ed the mean values. The abstracts from the original observations have not been revised except in special cases of extreme differences, nor have the hygrometric values been computed a second time.

G. M. WHIPPLE.

Kew Observatory, July 25, 1882.

Note.—The opportunity was taken, when making the observations discussed in the foregoing notice, of recording the results obtained with a simple form of screen designed for use in lightships, &c., by Mr. W. De La Rue. This screen consisted of a double shield of tinplate which enclosed partially a thermometer, the bulb of which stood about 2 inches from the base of the screen. This was carried out of doors by the observer when he went out to make the observations, being placed on the ground beside the other two screens, and the thermometer in it was read immediately after the other instruments had been observed. The results of the observations made with this screen at 9 a.m. and 9 p.m. are shown in Table XXIV. They do not materially differ from those obtained from the Wild's screen and thermograph.

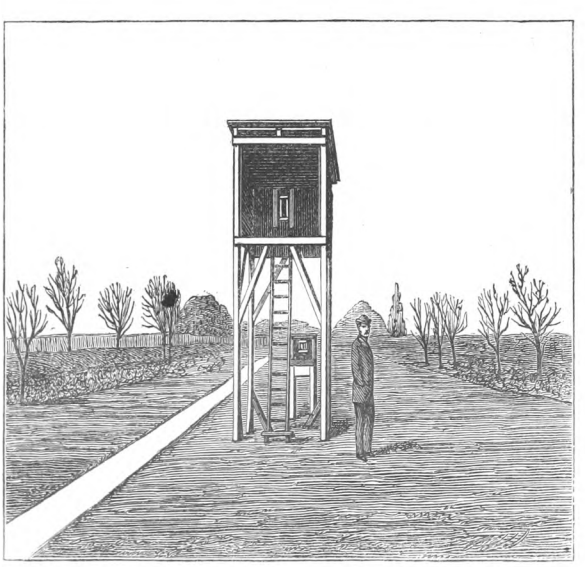


Fig. 1.
WILD'S and STEVENSON'S SCREENS.
From the North.

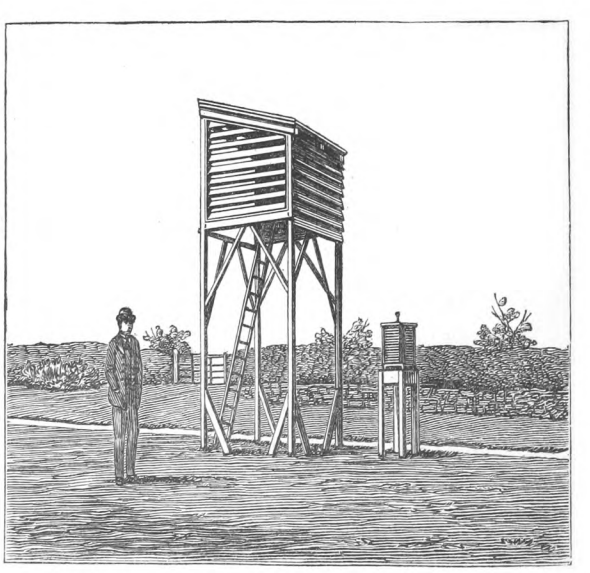


Fig. 2.
WILD'S and STEVENSON'S SCREENS.
From the South-west.

Comparison with Gaster's Tables suggests that the figures here given are the corrections to be applied to other readings to get Stevenson readings

SUMMARY of OBSERVATIONS of AIR TEMPERATURE in different SCREENS, from Tables VI. to IX.

WEATHER.	AT 9 A.M. Stevenson's Mean.	Wild's. Mean.	Wild's. Highest.	Wild's. Lowest.	Thermograph. Mean.	Thermograph. Highest.	Thermograph. Lowest.	AT 9 P.M. Stevenson's Mean.	Wild's. Mean.	Wild's. Highest.	Wild's. Lowest.	Thermograph. Mean.	Thermograph. Highest.	Thermograph. Lowest.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°
Calm -	43·52	−0·22	+0·80	−2·50	+0·60	+6·7	+0·1	43·27	−0·25	+0·5	−2·9	−1·65	+1·7	−5·1
Windy -	50·02	+0·05	+1·00	−0·80	+0·27	+2·8	−2·8	46·50	+0·05	+0·9	−0·9	+0·02	+2·2	−2·8
Overcast -	48·30	−0·05	+1·30	−2·20	0·00	+2·8	−1·7	48·27	+0·12	+1·5	−2·0	−0·02	+5·8	−2·3
Clear -	48·45	−0·07	+1·20	−2·10	+1·40	+5·6	−2·8	43·25	−0·25	+1·5	−3·5	−1·75	+2·0	−6·1
Dry -	48·57	−0·17	+0·70	−2·30	+0·77	+5·1	−7·9	46·42	−0·05	+0·8	−2·0	−1·20	+2·0	−5·6
Humid -	46·90	−0·07	+0·80	−1·50	−0·12	+5·7	−1·8	46·40	−0·05	+1·9	−2·9	−0·32	+5·1	−5·5
SEASONS.														
Spring -	52·47	−0·03	+1·2	−2·5	+0·90	+6·7	−2·8	48·63	−0·08	+1·9	−1·6	−0·98	+5·1	−6·1
Summer -	59·82	−0·38	+0·9	−2·3	+0·90	+5·7	−2·1	57·00	0·00	+1·5	−2·9	−0·72	+5·8	−5·6
Autumn -	40·95	0·00	+1·3	−0·9	+0·03	+3·4	−3·4	40·18	−0·02	+1·5	−2·2	−0·88	+3·0	−5·1
Winter -	37·28	+0·05	+0·7	−1·4	+0·12	+5·1	−7·9	36·93	−0·18	+0·8	−3·5	−0·77	+1·2	−4·3
Means and Extremes	47·63	−0·09	+1·3	−2·5	+0·49	+6·7	−3·4	45·68	−0·07	+1·9	−3·5	−0·82	+5·8	−6·1

SUMMARY of VAPOUR TENSION OBSERVATIONS in different SCREENS, from Tables X. to XIII.

WEATHER.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Calm -	·265	−·002	+·031	−·020	+·005	+·076	−·048	·253	−·010	+·012	−·041	−·009	+·027	−·067
Windy -	·308	+·001	+·035	−·036	+·013	+·069	−·024	·274	−·005	+·041	−·022	+·006	+·056	−·022
Overcast -	·309	−·001	+·036	−·023	+·005	+·048	−·066	·303	−·005	+·041	−·040	·000	+·056	−·033
Clear -	·283	−·001	+·031	−·045	+·020	+·138	−·034	·256	−·008	+·012	−·040	−·006	+·044	−·057
Dry -	·283	−·002	+·030	−·059	+·013	+·083	−·024	·277	−·005	+·048	−·030	−·002	+·055	−·088
Humid -	·314	−·003	+·018	−·027	+·001	+·089	−·066	·305	−·007	+·021	−·041	−·006	+·032	−·062
SEASONS.														
Spring -	·299	+·001	+·031	−·025	+·016	+·138	−·066	·270	−·006	+·048	−·031	+·001	+·055	−·088
Summer -	·423	·000	+·036	−·028	+·016	+·083	−·048	·408	−·008	+·041	−·041	−·005	+·056	−·067
Autumn -	·240	−·002	+·035	−·059	+·001	+·089	−·028	·231	−·005	+·017	−·026	−·006	+·034	−·063
Winter -	·214	−·005	+·030	−·045	+·005	+·060	−·024	·203	−·009	+·010	−·040	−·002	+·035	−·042
Means and Extremes	·294	−·001	+·036	−·059	+·009	+·138	−·066	·278	−·007	+·048	−·041	−·003	+·056	−·088

SUMMARY of MEAN VALUES of the RELATIVE HUMIDITY in different SCREENS, from Tables XIV. to XVII.

WEATHER.														
Calm -	·855	−·008	+·16	−·16	−·015	+·13	−·31	·89	−·03	+·04	−·11	+·012	+·24	−·12
Windy -	·812	−·002	+·11	−·09	+·022	+·13	−·05	·82	−·02	+·10	−·10	+·022	+·16	−·17
Overcast -	·855	−·008	+·09	−·16	+·007	+·13	−·20	·85	−·02	+·10	−·10	+·008	+·14	−·10
Clear -	·765	−·008	+·16	−·21	·000	+·24	−·31	·85	−·02	+·14	−·25	+·038	+·23	−·15
Dry -	·760	−·010	+·05	−·14	−·002	+·16	−·14	·84	−·01	+·14	−·10	+·030	+·18	−·23
Humid -	·907	−·012	+·08	−·15	·000	+·28	−·20	·90	−·02	+·10	−·15	·000	+·15	−·12
SEASONS.														
Spring -	·737	+·002	+·11	−·09	+·012	+·24	−·20	·80	−·017	+·14	−·15	+·030	+·23	−·23
Summer -	·812	+·008	+·13	−·08	+·005	+·12	·11	·86	−·017	+·10	−·09	+·022	+·18	−·12
Autumn -	·865	−·012	+·16	−·16	−·012	+·28	−·31	·88	−·023	+·10	−·11	+·007	+·24	−·17
Winter -	·890	−·030	+·09	−·21	·000	+·16	−·14	·88	−·028	+·14	−·25	+·015	+·21	−·15
Means and Extremes	·826	−·008	+·16	−·21	+·001	+·28	−·31	·855	−·021	+·14	−·25	+·018	+·24	−·23

SUMMARY of the MEAN MAXIMUM and MINIMUM TEMPERATURE and of DAILY RANGE in the three different SCREENS, from Tables XVIII. and XIX.

WEATHER.	Stevenson's, 4′ 4″ above Ground.			Wild's, 12′ above Ground.			Thermograph, 10′ above Ground.		
	Maximum.	Minimum.	Range.	Maximum.	Minimum.	Range.	Maximum.	Minimum.	Range.
	°	°	°	°	°	°	°	°	°
Calm - -	54·98	36·38	18·60	+0·05	−0·92	+1·12	+0·62	−2·82	+3·45
Windy - -	55·60	43·22	12·38	+0·32	−0·25	+0·57	+0·25	−0·80	+1·05
Overcast - -	52·95	42·22	10·72	+0·05	−0·40	+0·45	+0·25	−1·37	+1·12
Clear - -	58·95	36·80	22·15	+0·57	−0·88	+1·45	+1·12	−2·75	+3·88
Dry - - -	57·22	39·42	17·80	+0·52	−0·65	+1·17	+0·70	−1·92	+2·62
Humid - -	52·22	38·17	14·05	+0·12	−0·52	+0·65	−0·07	−1·65	+1·58
SEASONS.									
Spring - -	60·3	42·0	18·3	+0·37	−0·55	+0·92	+0·12	−1·92	+2·03
Summer - -	68·9	50·4	18·5	+0·28	−0·40	+0·68	+0·60	−1·73	+2·33
Autumn - -	48·0	34·5	13·4	+0·18	−0·73	+1·02	+0·45	−2·10	+2·55
Winter - -	44·1	30·5	13·6	+0·27	−0·73	+1·00	+0·42	−1·80	+2·22
MEANS - -	55·32	39·35	15·95	+0·27	−0·60	+0·91	+0·40	−1·89	+2·28

ABSTRACTS of SCREEN OBSERVATIONS.

SUMMARY of MEAN DAILY TEMPERATURES as derived from the MAXIMUM, MINIMUM 9 A.M. and 9 P.M. OBSERVATIONS.

Table XXII.

Abstract of Table XX.

—	Stevenson's.	Wild's.	Thermograph.
	°	°	°
Calm - -	44·5	−0·3	−0·8
Windy - -	48·8	−0·0	−0·1
Overcast - -	47·9	−0·1	−0·4
Clear - -	46·9	−0·2	−0·5
Dry - -	47·9	−0·1	−0·4
Humid - -	45·9	−0·1	−0·5
Mean of Averages	47·0	−0·1	−0·4

Table XXIII.

Abstract of Table XXI.

—	Stevenson's.	Wild's.	Thermograph.
	°	°	°
Spring - -	50·8	−0·1	−0·5
Summer - -	59·0	−0·1	−0·2
Autumn - -	40·9	−0·1	−0·6
Winter - -	37·2	−0·1	−0·5
Mean of Averages	47·0	−0·1	−0·4

Table XXIV.

DIFFERENCES between RESULTS obtained with DE LA RUE'S SCREEN and STEVENSON'S.

—	9 A.M.			9 P.M.			MEAN.		
	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.
	°	°	°	°	°	°	°	°	°
Calm - -	−1·50	+3·8	−5·5	−0·77	+2·0	−5·0	−1·13	+2·9	−5·2
Windy - -	0·0	+4·1	−4·9	−0·02	+2·7	−3·2	−0·01	+3·4	−4·0
Overcast - -	−0·40	+4·7	−5·1	−0·45	+3·1	−5·0	−0·42	+3·9	−5·0
Clear - -	−1·25	+2·7	−5·7	−0·82	+6·4	−4·9	−1·03	+4·5	−5·3
Dry - -	−1·07	+4·8	−6·3	−0·57	+6·4	−5·0	−0·80	+5·6	−5·6
Humid - -	−0·62	+3·1	−3·6	−0·55	+3·1	−4·4	−0·58	+3·1	−4·0
Spring - -	−1·15	+4·1	−6·1	−0·30	+3·2	−4·1	−0·72	+3·6	−5·1
Summer - -	−1·35	+4·8	−4·0	−0·50	+3·5	−5·0	−0·92	+4·1	−4·5
Autumn - -	−0·53	+3·3	−5·1	−0·87	+6·4	−5·0	−0·70	+4·8	−5·0
Winter - -	−0·20	+4·7	−6·3	−0·47	+2·9	−3·8	−0·33	+3·8	−5·0
MEAN - -	−0·81	+4·8	−6·3	−0·53	+6·4	−5·0	−0·67	+5·6	−5·1

APPENDIX III.

TABLES and DIAGRAMS illustrating the DIURNAL RANGE of BAROMETRIC PRESSURE in the BRITISH ISLES during the years 1876–1880.

Calculated from the RECORDS of NINE METEOROLOGICAL OBSERVATORIES in GREAT BRITAIN and IRELAND.

By FRANCIS C. BAYARD, LL.M., F.R.MET.SOC.

The following Tables and Diagrams illustrating the Diurnal Range of the barometer in Great Britain and Ireland during the lustrum 1876–80, are derived from the hourly records of—

(1.) The seven Observatories in connexion with the Meteorological Office, viz.:—
Valencia and Armagh, in Ireland,
Glasgow and Aberdeen, in Scotland,
Falmouth, Stonyhurst, and Kew, in England;

(2.) The Royal Observatory at Greenwich; and

(3.) The Observatory of the Mersey Harbour Board at Bidston, near Liverpool.

The barographs used were as follows:—

(1.) At the seven Observatories of the Meteorological Office, a photographic Barograph, known as the "Kew pattern," a description of which will be found in the Report of the Meteorological Office for 1867.

(2.) At Greenwich a photographic Siphon Barograph, described in the "Reductions of the Greenwich Meteorological Observations," published in 1878.

(3.) At Bidston a mechanical Barograph (King's pattern), described in the "Report of the Astronomer to the Board," 1865.

In every case eye observations of the Standard barometers were made at regular intervals throughout each day, and from a comparison of these readings, corrected for temperature, with the corresponding tabulated readings of the barograms, the corrections for the instrumental errors of the barographs were obtained.

The hourly readings upon which the means are based, were in every case corrected for temperature, but with the exception of Bidston they were not reduced to sea level. The heights above M.S.L. of the barometers at the other eight Observatories were as follows:—

	feet.		feet.		feet.		feet.
Valencia	23	Glasgow	184	Falmouth	211	Kew	34
Armagh	207	Aberdeen	89	Stonyhurst	361	Greenwich	159

As regards the means for the seven Observatories of the Meteorological Office, those for the year 1876 were calculated by Mr. H. S. Eaton, M.A., while those for the subsequent four years of the lustrum were calculated by me, with some slight assistance as regards the means for 1877 from papers of the late Chas. Greaves, M. Inst. C.E., which were kindly placed at my disposal by Mr. Baldwin Latham, M. Inst. C.E. Breaks in the continuity of the hourly readings were bridged over by interpolations, Mr. Eaton being responsible for those used in dealing with the observations for 1876, and the Meteorological Office for those used for the four subsequent years.

The mean values for Greenwich were calculated at the Royal Observatory, where also the smaller gaps in the hourly observations were provided for by interpolation; but the larger lacunæ, which, in some instances, embraced many consecutive days, were dealt with by me in the following manner: by comparing the hourly readings at Kew for 9 a.m., noon, 3 p.m., and 9 p.m., on the days when the observations failed, with the corresponding eye observations of the Standard barometer at Greenwich, corrections were obtained which were applied to the Kew hourly readings for the purpose of supplying the observations required.

The mean values for Bidston were wholly calculated at that Observatory, where also all breaks in the continuity of the observations were dealt with.

At all the Stations Greenwich Mean Time was used.

The tabulation of the records of the seven Observatories of the Meteorological Office begins at 1 a.m. and ends at midnight, and, therefore, in order to complete the daily period, the value for the 25th hour (1 a.m. after midnight) has been calculated by excluding the 1 a.m. observation for the 1st of the month, and including that for the 1st of the month following; *e.g.*, for January it would be obtained from the 31 observations, commencing with 1 a.m. on January 2nd, and ending with 1 a.m. on February 1st. At Greenwich and Bidston the tabulations begin at 0 hr. a.m. and end at 11 p.m., and in order to make the results of these Observatories comparable with those of the other seven, mean values have been calculated for midnight and for the following 1 a.m.; in the case of Greenwich this was done at the Royal Observatory, while for Bidston the necessary data were supplied to me.

The first twelve tables in each set give the mean hourly reading of the barometer for every month, first for each year of the lustrum, and then for the five years combined. The next table gives the mean hourly reading for each year, and also for the whole period; and the final table of each set exhibits for each month the diurnal range of the barometer, or the difference between the mean for the day and the means for each hour as given in the last columns of the first twelve tables.

For the purpose of this final table, however, these means have been corrected for the non-periodic change, which is shown by the differences between the means for the terminal hours of the days (the two 1 a.m means) to have taken place during the intervals. These differences, which are commonly large enough to cause considerable irregularities in the diurnal curve, have been dealt with thus: calling the difference between the initial and the terminal readings d, the following corrections have been applied to the daily series:

A.M. 1	2	3 a.m.	- - -	Noon	1 p.m.	2 p.m.	- - -	11 p.m.	Midt.	1 A.M.
$\frac{12}{24}d$	$\frac{11}{24}d$	$\frac{10}{24}d$	- - -	$\frac{1}{24}d$	0	$\frac{1}{24}d$	- - -	$\frac{10}{24}d$	$\frac{11}{24}d$	$\frac{12}{24}d$,

the correction being added during the first half of the day and subtracted during the latter half, if the initial mean value be lower than the final, and *vice versâ*. To the mean for the whole day a correction has been applied to make it the mean for the twenty-five hours.

The values given in these tables of diurnal range are also exhibited in a series of diagrams which follow the tables.

VALENCIA.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·120	29·619	30·170	29·842	30·210	29·9922
2 „	·117	·607	·170	·838	·205	·9874
3 „	·119	·603	·173	·836	·201	·9864
4 „	·116	·592	·169	·836	·197	·9820
5 „	·113	·591	·163	·831	·196	·9788
6 „	·110	·588	·159	·834	·197	·9776
7 „	·115	·590	·160	·837	·199	·9802
8 „	·128	·597	·165	·846	·206	·9884
9 „	·139	·611	·173	·850	·211	29·9968
10 „	·147	·620	·182	·861	·222	30·0064
11 „	·149	·631	·182	·865	·229	·0112
Noon.	·141	·636	·177	·861	·225	30·0080
1 p.m.	·129	·635	·164	·851	·216	29·9990
2 „	·119	·637	·158	·845	·208	·9934
3 „	·116	·642	·156	·839	·202	·9910
4 „	·116	·650	·158	·842	·204	·9940
5 „	·116	·659	·161	·845	·204	29·9970
6 „	·117	·665	·164	·851	·210	30·0014
7 „	·121	·667	·167	·851	·211	·0034
8 „	·124	·671	·174	·856	·216	·0082
9 „	·125	·673	·176	·855	·219	·0096
10 „	·125	·671	·178	·854	·224	·0104
11 „	·121	·668	·181	·849	·224	·0086
Midnight	30·120	29·663	30·185	29·846	30·227	30 0082
Mean	30·1235	29·6328	30·1694	29·8467	30 2110	29·9967
1 a.m. after Midnight	30·116	29·655	30·185	29·838	30·222	30·0032

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·707	29·985	30·158	29·451	29·636	29·7874
2 „	·689	·980	·147	·447	·632	·7790
3 „	·686	·979	·138	·443	·626	·7744
4 „	·679	·974	·128	·443	·620	·7688
5 „	·678	·976	·123	·444	·620	·7682
6 „	·676	·978	·122	·449	·625	·7700
7 „	·679	·979	·121	·453	·626	·7716
8 „	·687	·984	·127	·465	·632	·7790
9 „	·692	·989	·130	·471	·635	·7834
10 „	·698	·993	·136	·477	·638	·7884
11 „	·700	29·998	·139	·482	·636	·7910
Noon	·703	30·005	·142	·477	·633	·7920
1 p.m.	·699	30·001	·138	·467	·622	·7854
2 „	·693	29·996	·129	·460	·609	·7774
3 „	·690	·992	·125	·449	·597	·7706
4 „	·691	·990	·126	445	·590	·7684
5 „	·694	·989	·127	·445	·588	·7686
6 „	·701	·993	·134	·456	·594	·7756
7 „	·705	·997	·138	·461	·602	·7806
8 „	·702	·996	·141	·465	·605	.7818
9 „	·698	·996	·139	·465	·601	·7798
10 „	·697	·996	·137	·470	·608	·7816
11 „	·695	·998	·132	·466	·606	·7794
Midnight	29·690	29·997	30·126	29·469	29·610	29·7784
Mean	29·6929	29·9900	30·1335	29·4592	29·6163	29·7784
1 a.m. after Midnight	29·685	29·995	30·119	29·467	29·606	29·7744

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·588	29·802	30·194	29·919	29·943	29·8892
2 „	·582	·796	·192	·915	·943	·8856
3 „	·579	·789	·183	·906	·937	·8788
4 „	·579	·778	·175	·898	·934	·8728
5 „	·580	·775	·176	·895	·933	8718
6 „	·583	·773	·179	·899	·937	·8742
7 „	·584	·774	·181	·900	·941	·8760
8 „	·588	·777	·185	·906	·950	·8812
9 „	·591	·781	·187	·909	·952	·8840
10 „	·596	·788	·190	·914	·957	·8890
11 „	·599	·792	·189	·916	·957	·8906
Noon	·601	·792	·186	·915	·956	·8900
1 p.m.	·602	·793	·181	·910	·950	·8872
2 „	·594	·789	·173	·909	·940	·8810
3 „	·592	·785	·164	·899	·932	·8744
4 „	·592	·786	·162	·896	·928	·8728
5 „	·593	·789	·160	·894	·926	·8724
6 „	·598	·795	·165	·899	·933	·8780
7 „	·603	·803	·171	·903	·941	·8842
8 „	·605	·808	·179	·909	·950	·8902
9 „	·607	·812	·182	·911	·954	·8932
10 „	·608	·810	·186	·913	·958	·8950
11 „	·606	·811	·189	·910	·956	·8944
Midnight	29·604	29·808	30·191	29·907	29·959	29·8938
Mean	29·5939	29·7919	30·1800	29·9063	29·9445	29·8833
1 a.m. after Midnight	29·598	29·803	30·188	29·905	29·955	29·8898

VALENCIA.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·783	29·609	29·716	29·647	29·829	29·7168
2 „	·778	·605	·710	·642	·824	·7118
3 „	·771	·603	·704	·638	·821	·7074
4 „	·769	·599	·700	·637	·820	·7050
5 „	·768	·598	·696	·637	·820	·7038
6 „	·771	·601	·699	·647	·826	·7088
7 „	·777	·604	·703	·653	·833	·7140
8 „	·782	·607	·706	·662	·842	·7198
9 „	·785	·608	·707	·665	·848	·7226
10 „	·789	·611	·709	·670	·854	·7266
11 „	·793	·614	·710	·672	·856	·7290
Noon.	·796	·614	·710	·670	·856	·7292
1 p.m.	·795	·616	·707	·667	·850	·7270
2 „	·798	·615	·707	·667	·853	·7280
3 „	·796	·610	·701	·660	·848	·7230
4 „	·792	·607	·696	·659	·847	·7202
5 „	·793	·606	·696	·658	·847	·7200
6 „	·794	·605	·701	·661	·850	·7222
7 „	·795	·608	·704	·663	·853	·7246
8 „	·801	·611	·714	·667	·861	·7308
9 „	·805	·618	·721	·670	·864	·7356
10 „	·802	·618	·725	·671	·863	·7358
11 „	·801	·616	·725	·667	·858	·7334
Midnight	29·799	29·614	29·728	29·667	29·857	29·7330
Mean	29·7889	29·6090	29·7081	29·6590	29·8450	29·7220
1 a.m. after Midnight	29·795	29·612	29·722	29·663	29·854	29·7292

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·180	29·829	29·647	30·076	30·108	29·9680
2 „	·173	·820	·642	·069	·102	.9612
3 „	·168	·815	·636	·062	·096	·9554
4 „	·163	·809	·627	·059	·093	·9502
5 „	·160	·806	·628	·059	·093	·9492
6 „	·166	·807	·634	·064	·100	·9542
7 „	·169	·809	·636	·068	·102	·9568
8 „	·173	·811	·644	·072	·108	·9616
9 „	·176	·812	·649	·073	·108	·9636
10 „	·177	·812	·657	·077	·111	·9668
11 „	·178	·815	·656	·077	·110	·9672
Noon.	·177	·816	·660	·079	·111	·9686
1 p.m.	·177	·818	·759	·077	·105	·9672
2 „	·175	·816	·658	·075	·103	·9654
3 „	·172	·813	·655	·072	·099	·9622
4 „	·169	·805	·653	·069	·096	·9584
5 „	·169	·803	·652	·065	·093	·9564
6 „	·169	·801	·654	·065	·093	·9564
7 „	·173	·803	·654	·064	·095	·9578
8 „	·179	·805	·660	·067	·100	·9622
9 „	·187	·809	·667	·071	·107	·9682
10 „	·193	·808	·672	·074	·113	·9720
11 „	·192	·803	·672	·073	·110	·9700
Midnight	30·190	29·796	29·670	30·070	30·108	29·9668
Mean	30·1752	29·8100	29·6518	30·0699	30·1027	29·9619
1 a.m. after Midnight	30·186	29·789	29·664	30·062	30·102	29·9606

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·965	29·890	29·850	29·651	29·937	29·8586
2 „	·957	·886	·844	·642	·929	·8516
3 „	·953	·884	·836	·631	·923	·8454
4 „	·946	·881	·832	·625	·919	·8406
5 „	·947	·884	·831	·625	·920	·8414
6 „	·949	·890	·836	·630	·924	·8458
7 „	·954	·898	·837	·634	·927	·8500
8 „	·957	·906	·843	·641	·933	·8560
9 „	·961	·912	·845	·644	·936	·8596
10 „	·963	·916	·852	·649	·939	·8638
11 „	·965	·921	·855	·656	·941	·8676
Noon.	·966	·923	·857	·660	·943	·8698
1 p.m.	·968	·924	·855	·662	·943	·8704
2 „	·966	·922	·856	·667	·942	·8706
3 „	·966	·919	·854	·668	·940	·8694
4 „	·963	·916	·854	·669	·939	·8682
5 „	·961	·915	·851	·667	·936	·8660
6 „	·960	·913	·854	·666	·935	·8656
7 „	·960	·917	·853	·664	·935	·8658
8 „	·959	·921	·855	·663	·937	·8670
9 „	·966	·928	·857	·662	·940	·8706
10 „	·970	·933	·861	·660	.943	·8734
11 „	·967	·934	·858	·653	·940	·8704
Midnight	29·960	29·931	29·856	29·646	29·934	29·8654
Mean	29 9604	29·9110	29·8493	29·6515	29·9348	29·8614
1 a.m. after Midnight	29·955	29·926	29·847	29·634	29·924	29·8572

VALENCIA.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·070	29·917	30·078	29 816	29·883	29·9540
2 „	·063	·909	·072	·814	·874	·9464
3 „	·058	·903	·066	·809	·867	·9406
4 „	·054	·899	·066	·807	·863	·9378
5 „	·056	·898	·066	·808	·863	·9382
6 „	·059	·901	·070	·811	·869	·9420
7 „	·066	·904	·072	·813	·874	·9458
8 „	·072	·906	·078	·820	·880	·9512
9 „	·076	·907	·079	·820	·881	·9526
10 „	·080	·910	·080	·823	·884	·9554
11 „	·081	·913	·079	·827	·887	·9574
Noon.	·080	·915	·080	·831	·888	·9588
1 p.m.	·080	·914	·078	·832	·887	·9582
2 „	·080	·914	·076	·835	·888	·9586
3 „	·076	·914	·071	·833	·887	·9562
4 „	·073	·913	·066	·835	·884	·9542
5 „	·072	·911	·064	·833	·881	·9522
6 „	·070	·912	·067	·836	·879	·9528
7 „	·072	·914	·071	·838	·879	·9548
8 „	·074	·918	·079	·842	·882	·9590
9 „	·079	·921	·085	·846	·886	·9634
10 „	·081	·924	·092	·851	·887	·9670
11 „	·079	·922	·091	·849	886	·9654
Midnight	30·073	29·918	30·093	29 845	29·883	29·9624
Mean	30 0718	29·9115	30·0758	29·8281	29·8801	29·9535
1 a.m. after Midnight	30·068	29·914	30·089	29·839	29·878	29·9576

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·918	29·778	29·700	29·746	29·990	29·8264
2 „	·914	·774	·695	·738	·983	·8208
3 „	·911	·770	·687	·730	·976	·8148
4 „	·908	·765	·683	·724	·971	·8102
5 „	·909	·764	·681	·722	·970	·8092
6 „	·912	·771	·687	·726	·975	·8142
7 „	·917	·778	·688	·731	·979	·8186
8 „	·921	·786	·694	·739	·986	·8252
9 „	·925	·788	·695	·743	·988	·8278
10 „	·928	·792	·698	·749	·993	·8320
11 „	·928	·797	·699	·754	·994	·8344
Noon.	·927	·798	·698	·756	·993	·8344
1 p.m.	·927	·801	·693	·757	·993	·8342
2 „	·925	·802	·691	·758	·991	·8334
3 „	·923	·798	·684	·758	·990	·8306
4 „	·921	·794	·682	·757	·989	·8286
5 „	·918	·791	·679	·760	·988	·8272
6 „	·915	·788	·680	·763	·988	·8268
7 „	·917	·786	·682	·764	29·992	·8282
8 „	·921	·788	·690	·770	30·002	·8342
9 „	·923	·792	·694	·776	·008	·8386
10 „	·922	·792	·699	·776	·011	·8400
11 „	·918	·788	·699	·773	·010	·8376
Midnight	29·913	29·784	29·699	29·769	30·006	29·8342
Mean	29·9192	29·7860	29·6907	29·7516	29·9898	29·8276
1 a.m. after Midnight	29·912	29·780	29·695	29·762	30·001	29·8300

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·768	30·060	29·961	29·926	29·921	29·9272
2 „	·763	·056	·958	·914	·915	·9212
3 „	·756	·051	·954	·905	·906	·9144
4 „	·751	·045	·950	·902	·900	·9096
5 „	·748	·041	·946	·898	·898	·9062
6 „	·748	·045	·951	·903	·905	·9104
7 „	·757	·051	·955	·906	·913	·9164
8 „	·765	·057	·961	·909	·920	·9224
9 „	·770	·059	·965	·909	·925	·9256
10 „	·776	·062	·973	·911	·931	·9306
11 „	·781	·061	·972	·912	·935	·9322
Noon.	·781	·057	·973	·910	·935	·9312
1 p.m.	·782	·053	·970	·905	·937	·9294
2 „	·779	·046	·968	·902	·938	·9266
3 „	·775	·041	·963	·897	·936	·9224
4 „	·772	·035	·960	·894	·935	·9192
5 „	·771	·034	·959	893	·934	·9182
6 „	·770	·036	·957	·895	·939	·9194
7 „	·771	·038	·959	·897	·940	·9210
8 „	·774	·043	·965	·902	·947	·9262
9 „	·775	·049	·964	·904	·947	·9278
10 „	·776	·054	·965	·903	·945	·9286
11 „	·774	·059	·963	·901	·941	·9276
Midnight	29·771	30·060	29·960	29·900	29·935	29·9252
Mean	29·7690	30·0497	29·9613	29·9041	29·9283	29·9225
1 a.m. after Midnight	29·769	30·059	29·958	29·895	29·929	29·9220

VALENCIA.

OCTOBER.

——	1876	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·737	29·893	29·652	30·118	29·943	29·8686
2 „	·735	·888	·650	·114	·940	·8654
3 „	·731	·878	·644	·106	·934	·9586
4 „	·726	·877	·646	·105	·930	·8568
5 „	·727	·877	·646	·104	·927	·8562
6 „	·732	·879	·651	·108	·927	·8594
7 „	·733	·884	·654	·113	·930	·8628
8 „	·741	·893	·665	·124	·939	·8724
9 „	·749	·902	·671	·130	·943	·8790
10 „	·752	·906	·681	·137	·948	·8848
11 „	·757	·907	·677	·137	·950	·8856
Noon.	·755	·906	·679	·136	·949	·8850
1 p.m.	·752	·900	·671	·129	·941	·8786
2 „	·747	·891	·668	·125	·934	·8730
3 „	·743	·887	·658	·121	·929	·8676
4 „	·741	·887	·656	·124	·929	·8674
5 „	·742	·892	·653	·124	·931	·8684
6 „	·751	·900	·655	·131	·938	·8750
7 „	·760	·906	·656	·139	·945	·8812
8 „	·763	·906	656	·145	·949	·8838
9 „	·765	·907	·657	·144	·952	·8850
10 „	·766	·909	·662	·147	·952	·8872
11 „	·764	·909	·658	·143	·952	·8852
Midnight	29·760	29·907	29·658	30·141	29 950	29·8832
Mean	29·7470	29·8955	29·6593	30·1269	29·9401	29·8738
1 a.m. after Midnight	29·759	29·902	29·657	30·135	29·945	29·8796

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·739	29·581	29·944	30·293	29·844	29·8802
2 „	·733	·573	·942	·288	·839	·8750
3 „	·728	·567	·938	·284	·838	·8710
4 „	·720	·561	·931	·281	·836	·8658
5 „	·717	·558	·927	·277	·834	·8626
6 „	·712	·555	·929	·276	·840	·8624
7 „	·713	·553	·928	·276	·843	·8626
8 „	·715	·558	·938	·287	·852	·8700
9 „	·718	·559	·943	·291	·860	·8742
10 „	·723	·559	·950	·296	·868	·8792
11 „	·725	·554	·949	·296	·871	·8790
Noon.	·712	·541	·943	·291	·866	·8706
1 p.m.	·705	·525	·932	·282	·858	·8604
2 „	·693	·515	·929	·275	·855	·8534
3 „	·687	·504	·924	·268	·848	·8462
4 „	·683	·502	·930	·270	·847	·8464
5 „	·684	·503	·933	·272	·849	·8482
6 „	·688	·510	·941	·279	·853	·8542
7 „	·691	·516	·946	·283	·853	·8578
8 „	·694	·525	·951	·287	·851	·8616
9 „	·697	·532	·952	·287	·848	·8632
10 „	·700	·539	·956	·289	·848	·8664
11 „	·699	·539	·951	·288	·842	·8638
Midnight	29·698	29·542	29·949	30·291	29·839	29·8638
Mean	29·7073	29·5405	29·9398	30·2836	29·8493	29·8641
1 a.m. after Midnight	29·693	29·540	29·941	30·288	29·833	29·8590

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·268	29·989	29·756	30·189	29·896	29·8192
2 „	·262	·988	·754	·179	·894	·8154
3 „	·263	·993	·754	·175	·897	·8164
4 „	·254	992	·752	·169	·896	·8126
5 „	·246	·986	·746	·163	·893	8068
6 „	·246	·983	·743	·164	·894	·8060
7 „	·246	·988	·743	·166	·897	·8080
8 „	·246	29·998	·750	·171	·903	·8136
9 „	·252	30·006	·755	·178	·913	·8208
10 „	·258	·019	·761	·184	·925	·8294
11 „	·263	·022	·759	·187	·930	·8322
Noon.	·253	·019	·752	·180	·925	·8258
1 p.m.	·245	·011	·742	·170	·913	·8162
2 „	·241	·006	·740	·161	·906	·8108
3 „	·239	·006	·736	·158	·900	·8078
4 „	·243	·013	·744	·165	·903	·8136
5 „	·254	·014	·746	·169	·902	·8170
6 „	·260	·019	·746	·177	·903	·8210
7 „	·263	·025	·747	·177	·905	·8234
8 „	·266	·028	·751	·182	·908	·8270
9 „	·270	·029	·750	·185	·909	·8286
10 „	·271	·028	·753	·187	·911	·8300
11 „	·269	·027	·750	·186	·913	·8290
Midnight	29·261	30·027	29·751	30·186	29·913	29·8276
Mean	29·2558	30·0090	29·7492	30·1753	29·9062	29·8191
1 a.m. after Midnight	29·261	30·021	29·745	30·178	29·909	29·8228

VALENCIA.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·8210	29·8293	29·9022	29·8895	29·9283	29·8740
2 „	·8146	·8235	·8980	·8833	·9233	·8684
3 „	·8112	·8196	·8928	·8771	·9185	·8686
4 „	·8063	·8143	·8883	·8738	·9149	·8594
5 „	·8048	·8128	·8858	·8719	·9139	·8577
6 „	·8062	·8143	·8884	·8759	·9183	·8604
7 „	·8099	·8177	·8898	·8792	·9220	·8637
8 „	·8153	·8233	·8963	·8868	·9293	·8701
9 „	·8204	·8278	·8999	·8903	·9333	·8742
10 „	·8247	·8323	·9058	·8957	·9392	·8794
11 „	·8273	·8354	·9055	·8984	·9413	·8815
Noon	·8254	·8352	·9048	·8972	·9400	·8803
1 p.m.	·8226	·8326	·8992	·8924	·9346	·8761
2 „	·8181	·8291	·8961	·8899	·9306	·8726
3 „	·8153	·8259	·8909	·8852	·9257	·8685
4 „	·8138	·8248	·8906	·8854	·9243	·8676
5 „	·8147	·8255	·8901	·8854	·9233	·8676
6 „	·8168	·8281	·8932	·8899	·9263	·8707
7 „	·8203	·8317	·8957	·8920	·9293	·8736
8 „	·8227	·8350	·9013	·8963	·9340	·8777
9 „	·8257	·8388	·9037	·8980	·9363	·8803
10 „	·8267	·8402	·9072	·8996	·9386	·8823
11 „	·8246	·8395	·9058	·8965	·9365	·8804
Midnight	29·8209	29·8373	29·9055	29·8948	29·9351	29·8783
Mean	29·8179	29·8281	29 8974	29·8885	29·9290	29·8720
1 a.m. after Midnight	29·8164	29·8330	29·9008	29·8888	29·9298	29·8738

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	+ ·0008	+ ·0027	+ ·0059	+ ·0007	+ ·0024	− ·0033	+ ·0021	+ ·0005	+ ·0022	+ ·0001	+ ·0057	+ ·0018	+ ·0018
2 „	− ·0044	− ·0051	+ ·0023	− ·0048	− ·0041	− ·0103	− ·0056	− ·0052	− ·0036	− ·0035	+ ·0014	− ·0021	− ·0038
3 „	− ·0059	− ·0092	− ·0045	− ·0097	− ·0096	− ·0164	− ·0116	− ·0114	− ·0102	− ·0108	− ·0017	− ·0013	− ·0086
4 „	− ·0108	− ·0143	− ·0106	− ·0126	− ·0144	− ·0211	− ·0145	− ·0161	− ·0147	− ·0131	− ·0060	− ·0052	− ·0128
5 „	− ·0144	− ·0143	− ·0116	− ·0143	− ·0151	− ·0203	− ·0143	− ·0173	− ·0179	− ·0141	− ·0083	− ·0112	− ·0145
6 „	− ·0161	− ·0120	− ·0092	− ·0099	− ·0098	− ·0158	− ·0106	− ·0124	− ·0135	− ·0114	− ·0077	− ·0121	− ·0118
7 „	− ·0139	− ·0098	− ·0074	− ·0052	− ·0069	− ·0116	− ·0070	− ·0082	− ·0073	− ·0084	− ·0066	− ·0103	− ·0085
8 „	− ·0062	− ·0019	− ·0023	+ ·0001	− ·0018	− ·0055	− ·0017	− ·0017	− ·0011	+ ·0007	+ ·0017	− ·0048	− ·0020
9 „	+ ·0017	+ ·0030	+ ·0005	+ ·0024	+ ·0005	− ·0018	− ·0005	+ ·0007	+ ·0024	+ ·0068	+ ·0068	+ ·0022	+ ·0021
10 „	+ ·0109	+ ·0086	+ ·0055	+ ·0059	+ ·0040	+ ·0024	+ ·0022	+ ·0048	+ ·0076	+ ·0122	+ ·0127	+ ·0107	+ ·0073
11 „	+ ·0152	+ ·0117	+ ·0071	+ ·0077	+ ·0047	+ ·0063	+ ·0040	+ ·0070	+ ·0094	+ ·0125	+ ·0133	+ ·0133	+ ·0094
Noon	+ ·0116	+ ·0133	+ ·0064	+ ·0074	+ ·0064	+ ·0085	+ ·0053	+ ·0069	+ ·0086	+ ·0115	+ ·0058	+ ·0068	+ ·0082
1 p.m.	+ ·0021	+ ·0072	+ ·0036	+ ·0047	+ ·0053	+ ·0092	+ ·0045	+ ·0065	+ ·0070	+ ·0046	− ·0035	− ·0030	+ ·0040
2 „	− ·0040	− ·0003	− ·0026	+ ·0052	+ ·0038	+ ·0095	+ ·0047	+ ·0055	+ 0044	− ·0015	− ·0096	− ·0086	+ ·0005
3 „	− ·0068	− ·0065	− ·0093	− ·0003	+ ·0009	+ ·0083	+ ·0022	+ ·0026	+ ·0004	− ·0073	− ·0159	− ·0117	− ·0036
4 „	− ·0043	− ·0082	− ·0109	− ·0037	− ·0026	+ ·0072	± ·0000	+ ·0004	− ·0026	− ·0080	− ·0149	− ·0061	− ·0045
5 „	− ·0017	− ·0074	− ·0113	− ·0044	− ·0043	+ ·0050	− ·0021	− ·0011	− ·0034	− ·0074	− ·0122	− ·0028	− ·0045
6 „	+ ·0022	+ ·0001	− ·0057	− ·0027	− ·0040	+ ·0047	− ·0017	− ·0017	− ·0019	− ·0013	− ·0053	+ ·0010	− ·0014
7 „	+ ·0037	+ ·0056	+ ·0004	− ·0008	− ·0023	+ ·0050	+ ·0002	− ·0004	− ·0001	+ ·0044	− ·0008	+ ·0033	+ ·0016
8 „	+ ·0081	+ ·0074	+ ·0064	+ ·0049	+ ·0024	+ ·0062	+ ·0042	+ ·0054	+ ·0053	+ ·0066	+ ·0039	+ ·0067	+ ·0057
9 „	+ ·0090	+ ·0059	+ ·0094	+ ·0091	+ ·0087	+ ·0099	+ ·0085	+ ·0097	+ ·0071	+ ·0073	+ ·0063	+ ·0082	+ ·0083
10 „	+ ·0094	+ ·0083	+ ·0112	+ ·0088	+ ·0128	+ ·0127	+ ·0119	+ ·0109	+ ·0081	+ ·0091	+ ·0104	+ ·0094	+ ·0103
11 „	+ ·0071	+ ·0066	+ ·0105	+ ·0059	+ ·0112	+ ·0098	+ ·0102	+ ·0084	+ ·0074	+ ·0066	+ ·0087	+ ·0083	+ ·0084
Midnight	+ ·0062	+ ·0061	+ ·0099	+ ·0050	+ ·0083	+ ·0049	+ ·0070	+ ·0048	+ ·0052	+ ·0041	+ ·0096	+ ·0067	+ ·0063
1 a.m.	+ ·0008	+ ·0027	+ ·0059	+ ·0007	+ 0·024	− 0·033	+ ·0021	+ ·0005	+ ·0022	+ ·0001	+ ·0057	+ ·0018	+ ·0018
Mean†	29·9969	29·7782	29·8836	29·7223	29·9619	29·8612	29·9537	29·8277	29·9224	29·8740	29·8639	29·8192	29·8721

* A correction for non-periodicity has been applied to all the values in this table.

† Of twenty-five hours.

ARMAGH.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·927	29·407	29·869	29·760	30·034	29·7994
2 „	·929	·405	·869	·758	·034	·7990
3 „	·929	·399	·873	·760	·034	·7990
4 „	·927	·392	·875	·758	·032	·7968
5 „	·926	·389	·874	·757	·032	·7956
6 „	·927	·389	·874	·758	·031	·7958
7 „	·933	·395	·880	·763	·036	·8014
8 „	·940	·404	·886	·772	·040	·8084
9 „	·950	·411	·893	·784	·048	·8172
10 „	·957	·416	·899	·792	·056	·8240
11 „	·956	·419	·898	·797	·061	·8262
Noon.	·948	·413	·891	·793	·058	·8206
1 p.m.	·939	·405	·881	·786	·050	·8122
2 „	·932	·400	·872	·777	·039	·8040
3 „	·929	·405	·869	·776	·038	·8034
4 „	·929	·410	·866	·778	·036	·8038
5 „	·929	·416	·868	·781	·038	·8064
6 „	·928	·424	·868	·784	·041	·8090
7 „	·930	·434	·868	·784	·042	·8116
8 „	·932	·441	·872	·783	·045	·8146
9 „	·932	·440	·875	·786	·047	·8160
10 „	·931	·444	·879	·786	·052	·8184
11 „	·930	·444	·880	·784	·055	·8186
Midnight	29·929	29·442	29·882	29·782	30·055	29·8180
Mean	29·9341	29·4143	29·8775	29·7766	30·0431	29·8091
1 a.m. after Midnight	29·927	29·437	29·883	29·777	30·054	29·8156

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·477	29·625	29·970	29·278	29·390	29·5480
2 „	·471	·623	·962	·273	·387	·5432
3 „	·463	·620	·955	·266	·383	·5374
4 „	·458	·621	·947	·258	·384	·5336
5 „	·456	·624	·940	·255	·389	·5328
6 „	·453	·626	·935	·254	·393	·5322
7 „	·454	·632	·932	·256	·398	·5344
8 „	·459	·640	·934	·261	·407	·5402
9 „	·465	·646	·935	·266	·415	·5454
10 „	·468	·648	·935	·271	·419	·5482
11 „	·475	·650	·938	·277	·422	·5524
Noon.	·474	·649	·934	·272	·418	·5494
1 p.m.	·469	·641	·925	·265	·408	·5416
2 „	·462	·633	·918	·259	·394	·5332
3 „	·458	·631	·914	·257	·384	·5288
4 „	·455	·631	·912	·258	·374	·5260
5 „	·459	·635	·916	·261	·364	·5270
6 „	·465	·643	·927	·268	·361	·5328
7 „	·471	·649	·932	·274	·357	·5366
8 „	·472	·653	·932	·278	·349	·5368
9 „	·474	·657	·933	·280	·348	·5384
10 „	·471	·656	·936	·284	·346	·5386
11 „	·471	·651	·937	·284	·347	·5380
Midnight	29·467	29·648	29·936	29·282	29·350	29·5366
Mean	29·4653	29·6388	29·9348	29·2682	29·3828	29·5380
1 a.m. after Midnight	29·461	29·644	29·931	29·275	29·351	29·5324

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·291	29·535	29·902	29·709	29·786	29·6446
2 „	·288	·532	·901	·706	·783	·6420
3 „	·281	·525	·895	·701	·776	·6356
4 „	·274	·516	·888	·695	·776	·6298
5 „	·276	·514	·885	·695	·778	·6296
6 „	·276	·514	·884	·696	·787	·6314
7 „	·277	·518	·885	·700	·796	·6352
8 „	·280	·523	·887	·704	·803	·6394
9 „	·285	·527	·890	706	·812	·6440
10 „	·285	·533	·893	·707	·815	·6466
11 „	·287	·531	·891	·707	·818	·6468
Noon.	·285	·527	·888	·704	·817	·6442
1 p.m.	·283	·524	·879	·698	·810	·6388
2 „	·279	·516	·869	·688	·800	·6304
3 „	·278	·511	·864	·682	·793	·6256
4 „	·281	·507	·861	·677	·786	·6224
5 „	·285	·509	·862	·677	·785	·6236
6 „	·292	·517	·866	·681	·784	·6280
7 „	·298	·525	·871	·687	·789	·6340
8 „	·301	·529	·877	·693	·793	·6386
9 „	·304	·529	·882	·699	·796	·6420
10 „	·305	·529	·888	·699	·799	·6440
11 „	·303	·530	·890	·698	·799	·6440
Midnight	29·303	29 529	29·891	29·696	29·800	29 6438
Mean	29·2874	29·5229	29·8829	29·6960	29·7950	29·6369
1 a.m. after Midnight	29·300	29·528	29·892	29·694	29·800	29·6428

ARMAGH.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·599	29·514	29·582	29·480	29·608	29·5566
2 „	·594	·511	·578	·475	·599	·5514
3 „	·591	·507	·575	·471	·589	·5466
4 „	·589	·504	·570	·467	·583	·5426
5 „	·588	·505	·569	·468	·583	·5426
6 „	·594	·509	·573	·474	·586	·5472
7 „	·601	·514	·580	·480	·593	·5536
8 „	·605	·520	·583	·484	·600	·5584
9 „	·607	·521	·585	·486	·603	·5604
10 „	·610	·524	·586	·486	·605	·5622
11 „	·607	·526	·586	·486	·609	·5628
Noon.	·604	·525	·584	·481	·609	·5606
1 p.m.	·599	·522	·582	·480	·611	·5588
2 „	·594	·517	·579	·475	·611	·5552
3 „	·588	·512	·573	·473	·611	·5514
4 „	·585	·507	·566	·471	·612	·5482
5 „	·587	·504	·567	·473	·615	·5492
6 „	·590	·506	·567	·478	·620	·5522
7 „	·594	·509	·570	·486	·628	·5574
8 „	·602	·517	·579	·497	·637	·5664
9 „	·607	·522	·585	·503	·645	·5724
10 „	·611	·525	·588	·505	·647	·5752
11 „	·612	·526	·591	·507	·648	·5768
Midnight	29·612	29·527	29·593	29·507	29·643	29·5764
Mean	29·5988	29·5156	29·5788	29·4830	29·6123	29·5577
1 a.m. after Midnight	29·612	29·525	29·593	29·503	29·638	29·5742

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·978	29·658	29·483	29·825	29·907	29·7702
2 „	·974	·652	·475	·820	·900	·7642
3 „	·972	·647	·471	·817	·895	·7604
4 „	·971	·641	·465	·813	·891	·7562
5 „	·972	·640	·464	·814	·893	·7566
6 „	·978	·641	·464	·819	·899	·7602
7 „	·982	·642	·468	·822	·903	·7634
8 „	·985	·644	·470	·824	·906	·7658
9 „	·985	·646	·473	·826	·908	·7676
10 „	·983	·643	·473	·822	·905	·7646
11 „	·982	·640	·471	·821	·907	·7642
Noon.	·978	·639	·472	·819	·903	·7622
1 p.m.	·976	·637	·476	·816	·901	·7612
2 „	·971	·632	·473	·813	·895	·7568
3 „	·967	·629	·472	·810	·891	·7538
4 „	·963	·624	·470	·806	·885	·7496
5 „	·959	·624	·474	·806	·883	·7492
6 „	·959	·623	·475	·805	·884	·7492
7 „	·962	·626	·481	·810	·890	·7538
8 „	·968	·629	·488	·813	·898	·7592
9 „	·979	·635	·498	·821	·908	·7682
10 „	·984	·634	·500	·818	·909	·7690
11 „	·986	·630	·502	·816	·910	·7688
Midnight	29·986	29·627	29·501	29·810	29·908	29·7664
Mean	29·9750	29·6368	29·4773	29·8161	29·8991	29·7609
1 a.m. after Midnight	29·985	29·623	29·499	29·806	29·905	29·7636

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·735	29·691	29·671	29·480	29·732	29·6618
2 „	·733	·686	·666	·475	·724	·6568
3 „	·730	·683	·661	·470	·717	·6522
4 „	·729	·680	·658	·464	·713	·6488
5 „	·731	·679	·660	·463	·712	·6490
6 „	·734	·683	·664	·465	·716	·6524
7 „	·736	·687	·669	·466	·719	·6554
8 „	·737	·696	·671	·469	·723	·6592
9 „	·736	·701	·672	·469	·724	·6604
10 „	·734	·706	·671	·468	·722	·6602
11 „	·730	·706	·671	·465	·721	·6586
Noon.	·728	·707	·669	·462	·720	·6572
1 p.m.	·723	·707	·666	·462	·718	·6552
2 „	·719	·704	·661	·459	·714	·6514
3 „	·719	·704	·658	·461	·711	·6506
4 „	·718	·704	·652	·456	·707	·6474
5 „	·717	·704	·652	·455	·704	·6464
6 „	·720	·708	·651	·459	·706	·6488
7 „	·722	·711	·655	·465	·710	·6526
8 „	·726	·713	·659	·470	·714	·6564
9 „	·731	·717	·667	·480	·721	·6632
10 „	·733	·720	·670	·484	·723	·6660
11 „	·730	·720	·672	·485	·724	·6662
Midnight	29·719	29·719	29·671	29·483	29·719	29·6622
Mean	29·7279	29·7015	29·6640	29·4681	29·7173	29·6558
1 a.m. after Midnight	29·722	29·718	29·668	29·477	29·713	29·6596

ARMAGH.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·820	29·624	29·855	29·532	29·647	29·6956
2 „	·812	·616	·852	·528	·639	·6894
3 „	·802	·612	·847	·523	·632	·6832
4 „	·798	·608	·845	·518	·627	·6792
5 „	·796	·607	·846	·517	·627	·6786
6 „	·799	·609	·851	·518	·629	·6812
7 „	·805	·610	·856	·521	·635	·6854
8 „	·813	·610	·858	·525	·637	·6886
9 „	·814	·611	·859	·527	·638	·6898
10 „	·817	·610	·859	·526	·637	·6898
11 „	·818	·609	·860	·527	·637	·6902
Noon.	·819	·607	·858	·528	·635	·6894
1 p.m.	·820	·608	·857	·528	·634	·6894
2 „	·817	·606	·854	·527	·630	·6868
3 „	·815	·609	·851	·528	·631	·6868
4 „	·812	·607	·845	·525	·625	·6828
5 „	·809	·609	·844	·525	·627	·6828
6 „	·810	·609	·844	·524	·628	·6830
7 „	·814	·614	·850	·527	·635	·6880
8 „	·819	·619	·856	·531	·639	·6928
9 „	·825	·626	·864	·539	·648	·7004
10 „	·825	·629	·868	·542	·651	·7030
11 „	·825	·630	·870	·542	·653	·7040
Midnight	29·822	29·625	29·870	29·541	29·650	29·7016
Mean	29·8136	29·6135	29·8550	29·5279	29·6363	29·6892
1 a.m. after Midnight	29·814	29·620	29·868	29·536	29·645	29·6966

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·687	29·592	29·523	29·515	29·815	29·6264
2 „	·682	·585	·519	·508	·810	·6208
3 „	·676	·580	·515	·503	·806	·6160
4 „	·672	·575	·512	·501	·803	·6126
5 „	·671	·572	·512	·500	·805	·6120
6 „	·676	·576	·515	·503	·808	·6156
7 „	·680	·581	·520	·506	·816	·6206
8 „	·686	·587	·523	·510	·820	·6252
9 „	·689	·590	·525	·511	·824	·6278
10 „	·691	·589	·523	·515	·824	·6284
11 „	·689	·590	·526	·517	·823	·6290
Noon.	·687	·590	·523	·517	·821	·6276
1 p.m.	·685	·592	·522	·514	·818	·6262
2 „	·682	·590	·517	·511	·813	·6226
3 „	·680	·590	·512	·510	·812	·6208
4 „	·679	·587	·506	·507	·808	·6174
5 „	·679	·588	·504	·508	·806	·6170
6 „	·680	·588	·504	·508	·805	·6170
7 „	·685	·591	·506	·512	·810	·6208
8 „	·690	·597	·513	·521	·818	·6278
9 „	·691	·601	·518	·531	·825	·6332
10 „	·697	·601	·516	·534	·828	·6352
11 „	·695	·600	·517	·536	·831	·6358
Midnight	29·690	29·598	29·514	29·535	29·829	29·6332
Mean	29·6841	29·5888	29·5160	29·5139	29·8158	29·6237
1 a.m. after Midnight	29·678	29·593	29·510	29·532	29·827	29·6280

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·549	29·851	29·683	29·644	29·707	29·6868
2 „	·546	·848	·677	·641	·703	·6830
3 „	·542	·846	·669	·638	·698	·6786
4 „	·539	·846	·668	·633	·694	·6760
5 „	·540	·848	·669	·635	·694	·6772
6 „	·544	·850	·677	·641	·699	·6822
7 „	·549	·858	·686	·648	·708	·6898
8 „	·556	·862	·691	·656	·713	·6956
9 „	·558	·865	·697	·657	·718	·6990
10 „	·562	·866	·699	·655	·719	·7002
11 „	·560	·863	·700	·655	·717	·6990
Noon.	·560	·860	·700	·649	·717	·6972
1 p.m.	·559	·857	·700	·643	·715	·6948
2 „	·555	·852	·695	·635	·713	·6900
3 „	·552	·849	·694	·629	·712	·6872
4 „	·549	·845	·690	·625	·707	·6832
5 „	·550	·844	·691	·625	·709	·6838
6 „	·555	·845	·693	·626	·713	·6864
7 „	·559	·850	·695	·631	·719	·6908
8 „	·565	·856	·702	·635	·722	·6960
9 „	·566	·857	·700	·634	·729	·6972
10 „	·563	·859	·694	·633	·728	·6954
11 „	·562	·859	·692	·630	·726	·6938
Midnight	29·558	29·856	29·687	29·628	29·721	29·6900
Mean	29·5541	29·8538	29·6895	29·6386	29·7125	29·6897
1 a.m. after Midnight	29·554	29·856	29·681	29·623	29·716	29·6860

ARMAGH.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·605	29·645	29·429	29·898	29·789	29·6732
2 „	·602	·640	·422	·892	·784	·6680
3 „	·596	·637	·413	·887	·779	·6624
4 „	·590	·635	·410	·885	·776	·6592
5 „	·590	·637	·409	·885	·775	·6592
6 „	·593	·639	·409	·888	·776	·6610
7 „	·594	·643	·414	·893	·780	·6648
8 „	·604	·652	·422	·901	·788	·6734
9 „	·611	·656	·425	·908	·792	·6784
10 „	·615	·656	·426	·909	·794	·6800
11 „	·616	·655	·430	·910	·796	·6814
Noon	·613	·652	·430	·908	·790	·6786
1 p.m.	·608	·645	·428	·903	·783	·6734
2 „	·601	·640	·423	·901	·776	·6682
3 „	·600	·636	·426	·899	·771	·6664
4 „	·599	·630	·427	·899	·767	·6644
5 „	·604	·630	·432	·903	·771	·6680
6 „	·609	·637	·439	·909	·778	·6744
7 „	·617	·644	·445	·916	·780	·6804
8 „	·621	·647	·448	·918	·787	·6842
9 „	·625	·652	·451	·922	·792	·6884
10 „	·625	·654	·448	·922	·791	·6880
11 „	·626	·653	·446	·924	·790	·6878
Midnight	29·626	29·653	29·440	29·921	29·788	29·6856
Mean	29·6079	29·6437	29·4288	29·9042	29·7830	29·6737
1 a.m. after Midnight	29·627	29·649	29·434	29·917	29·786	29·6826

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·604	29·261	29·668	30·087	29·623	29·6486
2 „	·604	·261	·665	·081	·614	·6450
3 „	·601	·262	·663	·078	·607	·6422
4 „	·598	·261	·658	·072	·601	·6380
5 „	·597	·264	·660	·069	·601	·6382
6 „	·596	·264	·658	·067	·598	·6366
7 „	·600	·264	·661	·068	·601	·6388
8 „	·605	·272	·667	·074	·605	·6446
9 „	·607	·271	·672	·080	·612	·6484
10 „	·607	·268	·676	·084	·619	·6508
11 „	·606	·264	·676	·086	·628	·6520
Noon	·596	·251	·667	·079	·622	·6430
1 p.m.	·586	·239	·662	·070	·619	·6352
2 „	·576	·222	·655	·062	·618	·6266
3 „	·570	·214	·653	·060	·616	·6226
4 „	·568	·210	·655	·063	·619	·6230
5 „	·568	·211	·661	·067	·625	·6264
6 „	·571	·211	·664	·071	·628	·6290
7 „	·569	·211	·667	·076	·627	·6300
8 „	·570	·208	·669	·078	·626	·6302
9 „	·569	·207	·669	·081	·629	·6310
10 „	·569	·209	·669	·082	·625	·6308
11 „	·570	·213	·669	·085	·625	·6324
Midnight	29·571	29·219	29·669	30·083	29·623	29·6330
Mean	29·5866	29·2390	29·6647	30·0751	29·6171	29·6365
1 a.m. after Midnight	29·566	29·219	29·662	30·080	29·615	29·6284

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·118	29·694	29·517	29·990	29·624	29·5886
2 „	·114	·694	·515	·986	·620	·5858
3 „	·114	·694	·516	·983	·620	·5854
4 „	·112	·693	·513	·972	·616	·5812
5 „	·109	·688	·510	·968	·615	·5780
6 „	·112	·689	·506	·966	·614	·5774
7 „	·108	·697	·510	·970	·618	·5806
8 „	·113	·705	·518	·974	·624	·5868
9 „	·116	·712	·527	·977	·635	·5934
10 „	·117	·720	·530	·979	·643	·5978
11 „	·115	·722	·530	·983	·652	·6004
Noon	·104	·714	·520	·973	·647	·5916
1 p.m.	·097	·708	·511	·962	·643	·5842
2 „	·089	·706	·505	·951	·634	·5770
3 „	·086	·710	·505	·947	·634	·5764
4 „	·087	·715	·507	·944	·636	·5778
5 „	·086	·720	·508	·951	·637	·5804
6 „	·087	·724	·509	·955	·638	·5826
7 „	·091	·727	·512	·963	·639	·5864
8 „	·095	·730	·514	·967	·639	·5890
9 „	·098	·734	·516	·970	·639	·5914
10 „	·100	·736	·516	·969	·638	·5918
11 „	·102	·737	·515	·973	·639	·5932
Midnight	29·105	29·737	29·510	29·975	29·639	29·5932
Mean	29·1031	29·7128	29·5142	29·9687	29·6326	29·5863
1 a.m. after Midnight	29·103	29·733	29·505	29·973	29·635	29·5898

ARMAGH.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·6166	29·5914	29·6793	29·6832	29·7219	29·6583
2 „	·6132	·5878	·6751	·6786	·7164	·6541
3 „	·6087	·5843	·6711	·6748	·7113	·6499
4 „	·6054	·5810	·6674	·6697	·7080	·6462
5 „	·6051	·5806	·6665	·6688	·7087	·6458
6 „	·6075	·5824	·6675	·6708	·7113	·6478
7 „	·6105	·5868	·6718	·6744	·7169	·6520
8 „	·6159	·5929	·6758	·6795	·7222	·6571
9 „	·6193	·5964	·6794	·6831	·7274	·6610
10 „	·6213	·5983	·6806	·6845	·7298	·6627
11 „	·6208	·5979	·6814	·6859	·7326	·6646
Noon	·6171	·5945	·6780	·6821	·7298	·6601
1 p.m.	·6128	·5904	·6741	·6773	·7258	·6559
2 „	·6072	·5848	·6684	·6715	·7198	·6502
3 „	·6044	·5833	·6659	·6693	·7170	·6478
4 „	·6028	·5814	·6631	·6674	·7135	·6455
5 „	·6034	·5828	·6649	·6693	·7137	·6467
6 „	·6063	·5863	·6673	·6723	·7155	·6494
7 „	·6102	·5909	·6710	·6776	·7188	·6535
8 „	·6141	·5949	·6758	·6820	·7223	·6577
9 „	·6174	·5981	·6797	·6872	·7273	·6618
10 „	·6187	·5997	·6810	·6882	·7281	·6630
11 „	·6184	·5994	·6818	·6887	·7289	·6633
Midnight	29·6166	29·5983	29·6803	29·6869	29·7271	29·6617
Mean	29·6122	29·5902	29·6736	29·6780	29·7206	29·6548
1 a.m. after Midnight	29·6124	29·5954	29·6772	29·6828	29·7238	29·6583

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	−·0019	+·0024	+·0066	+·0070	+·0059	+·0048	+·0066	+·0033	−·0032	+·0038	+·0023	+·0028	+·0033
2 „	−·0030	−·0018	+·0041	+·0011	+·0002	−·0001	+·0004	−·0024	−·0070	−·0018	−·0004	±·0000	−·0009
3 „	−·0036	−·0069	−·0023	−·0045	−·0034	−·0046	−·0059	−·0072	−·0113	−·0078	−·0024	−·0005	−·0051
4 „	−·0065	−·0101	−·0080	−·0092	−·0073	−·0079	−·0099	−·0107	−·0139	−·0114	−·0058	−·0047	−·0088
5 „	−·0084	−·0102	−·0081	−·0099	−·0066	−·0076	−·0106	−·0114	−·0127	−·0118	−·0047	−·0080	−·0092
6 „	−·0089	−·0102	−·0062	−·0061	−·0027	−·0041	−·0080	−·0078	−·0076	−·0104	−·0055	−·0086	−·0072
7 „	−·0039	−·0073	−·0024	−·0004	+·0007	−·0010	−·0038	−·0029	±·0000	−·0070	−·0024	−·0055	−·0030
8 „	+·0024	−·0009	+·0019	+·0037	+·0034	+·0028	−·0007	+·0016	+·0058	+·0013	+·0042	+·0007	+·0021
9 „	+·0105	+·0050	+·0066	+·0049	+·0055	+·0041	+·0005	+·0042	+·0093	+·0059	+·0088	+·0072	+·0060
10 „	+·0166	+·0084	+·0093	+·0060	+·0028	+·0040	+·0004	+·0047	+·0105	+·0071	+·0121	+·0116	+·0077
11 „	+·0182	+·0133	+·0095	+·0059	+·0026	+·0025	+·0008	+·0052	+·0093	+·0081	+·0141	+·0141	+·0096
Noon	+·0119	+·0109	+·0070	+·0029	+·0009	+·0012	−·0001	+·0038	+·0076	+·0049	+·0060	+·0053	+·0051
1 p.m.	+·0028	+·0038	+·0017	+·0004	+·0002	−·0007	−·0001	+·0023	+·0052	−·0007	−·0010	−·0022	+·0009
2 „	−·0061	−·0039	−·0066	−·0039	−·0039	−·0044	−·0027	−·0014	+·0004	−·0063	−·0088	−·0095	−·0048
3 „	−·0074	−·0077	−·0113	−·0085	−·0066	−·0051	−·0028	−·0032	−·0023	−·0085	−·0119	−·0101	−·0072
4 „	−·0076	−·0098	−·0145	−·0124	−·0106	−·0082	−·0068	−·0067	−·0063	−·0109	−·0107	−·0088	−·0095
5 „	−·0057	−·0082	−·0132	−·0121	−·0107	−·0091	−·0069	−·0072	−·0057	−·0077	−·0064	−·0062	−·0083
6 „	−·0038	−·0017	−·0087	−·0099	−·0104	−·0066	−·0067	−·0072	−·0030	−·0017	−·0030	−·0041	−·0056
7 „	−·0019	+·0027	−·0026	−·0054	−·0055	−·0028	−·0018	−·0035	+·0014	+·0040	−·0012	−·0003	−·0015
8 „	+·0005	+·0036	+·0020	+·0029	+·0001	+·0011	+·0030	+·0034	+·0066	+·0074	−·0001	+·0022	+·0027
9 „	+·0012	+·0058	+·0055	+·0081	+·0094	+·0080	+·0106	+·0088	+·0079	+·0112	+·0015	+·0046	+·0068
10 „	+·0029	+·0067	+·0076	+·0102	+·0105	+·0109	+·0131	+·0107	+·0061	+·0104	+·0022	+·0049	+·0080
11 „	+·0024	+·0067	+·0077	+·0111	+·0106	+·0112	+·0141	+·0112	+·0045	+·0098	+·0046	+·0063	+·0083
Midnight	+·0012	+·0060	+·0075	+·0099	+·0084	+·0073	+·0116	+·0086	+·0008	+·0072	+·0060	+·0062	+·0067
1 a.m.	−·0019	+·0024	+·0066	+·0070	+·0059	+·0048	+·0066	+·0033	−·0032	+·0038	+·0023	+·0028	+·0033
Mean†	29·8094	29·5378	29·6371	29·5584	29·7610	29·6559	29·6895	29·6239	29·6896	29·6741	29·6362	29·5864	29·6550

* A correction for non-periodicity has been applied to all the values in this table.

† Of twenty-five hours.

GLASGOW.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·920	29·420	29·791	29·800	30·018	29·7898
2 „	·923	·414	·798	·801	·020	·7912
3 „	·923	·411	·802	·802	·021	·7918
4 „	·919	·403	·804	·801	·018	·7890
5 „	·918	·396	·803	·802	·019	·7876
6 „	·922	·394	·807	·804	·020	·7894
7 „	·927	·399	·810	·807	·022	·7930
8 „	·935	·412	·822	·816	·028	·8026
9 „	·943	·423	·829	·824	·037	·8112
10 „	·949	·431	·835	·834	·044	·8186
11 „	·953	·434	·836	·839	·048	·8220
Noon	·940	·431	·828	·837	·045	·8162
1 p.m.	·932	·426	·817	·829	·038	·8084
2 „	·928	·425	·811	·824	·032	·8040
3 „	·927	·424	·810	·822	·030	·8026
4 „	·925	·431	·810	·826	·030	·8044
5 „	·924	·437	·810	·830	·032	·8066
6 „	·926	·445	·810	·836	·033	·8100
7 „	·928	·448	·808	·835	·035	·8108
8 „	·928	·452	·810	·838	·035	·8126
9 „	·930	·455	·808	·838	·036	·8134
10 „	·931	·456	·807	·839	·039	·8144
11 „	·926	·452	·803	·836	·042	·8118
Midnight	29·925	29·452	29·804	29·833	30·044	29·8116
Mean	29·9293	29·4280	29·8114	29·8230	30·0319	29·8047
1 a.m. after Midnight	29·924	29·446	29·804	29·830	30·043	29·8094

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·469	29·530	29·946	29·313	29·365	29·5246
2 „	·464	·527	·944	·308	·361	·5208
3 „	·455	·520	·936	·300	·356	·5134
4 „	·447	·514	·932	·295	·357	·5090
5 „	·443	·514	·929	·290	·360	·5072
6 „	·444	·516	·926	·286	·363	·5070
7 „	·445	·517	·924	·288	·370	·5088
8 „	·453	·524	·928	·293	·382	·5160
9 „	·457	·525	·929	·294	·388	·5186
10 „	·458	·529	·927	·296	·395	·5210
11 „	·466	·536	·928	·297	·398	·5250
Noon	·461	·535	·922	·292	·398	·5216
1 p.m.	·456	·530	·909	·285	·391	·5142
2 „	·450	·523	·899	·279	·382	·5066
3 „	·446	·517	·892	·277	·374	·5012
4 „	·443	·519	·891	·281	·368	·5004
5 „	·446	·524	·893	·286	·364	·5026
6 „	·455	·535	·901	·296	·364	·5102
7 „	·459	·538	·901	·300	·361	·5118
8 „	·458	·545	·906	·305	·352	·5132
9 „	·461	·545	·906	·306	·344	·5124
10 „	·464	·549	·910	·306	·341	·5140
11 „	·464	·548	·909	·306	·333	·5120
Midnight	29·462	29·554	29·910	29·305	29·331	29·5124
Mean	29·4552	29·5298	29·9166	29·2952	29·3666	29·5127
1 a.m. after Midnight	29·455	29·552	29·909	29·302	29·324	29·5084

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·204	29·494	29·827	29·703	29·817	29·6090
2 „	·202	·488	·822	·698	·815	·6050
3 „	·198	·480	·816	·688	·811	·5986
4 „	·195	·474	·811	·683	·809	·5944
5 „	·192	·470	·808	·680	·810	·5920
6 „	·191	·472	·805	·684	·813	·5930
7 „	·196	·473	·807	·690	·822	·5976
8 „	·200	·477	·809	·695	·830	·6022
9 „	·204	·480	·810	·698	·836	·6056
10 „	·201	·483	·807	·699	·841	·6062
11 „	·205	·482	·805	·694	·841	·6054
Noon	·203	·479	·797	·695	·838	·6024
1 p.m.	·200	·475	·790	·694	·832	·5982
2 „	·194	·470	·780	·690	·822	·5912
3 „	·194	·465	·773	·687	·815	·5868
4 „	·191	·468	·770	·684	·812	·5850
5 „	·196	·468	·773	·686	·809	·5864
6 „	·201	·476	·781	·694	·817	·5938
7 „	·210	·481	·788	·697	·823	·5998
8 „	·210	·486	·795	·700	·830	·6042
9 „	·213	·486	·800	·700	·832	·6062
10 „	·212	·487	·807	·699	·834	·6078
11 „	·212	·486	·811	·695	·831	·6070
Midnight	29·211	29·486	29·813	29·693	29·831	29·6068
Mean	29·2015	29·4786	29·8002	29·6928	29·8238	29·5994
1 a.m. after Midnight	29·208	29·483	29·808	29·687	29·830	29·6032

GLASGOW.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·600	29·584	29·636	29·507	29·595	29·5844
2 „	·597	·582	·631	·503	·592	·5810
3 „	·594	·578	·627	·500	·590	·5778
4 „	·591	·575	·624	·499	·589	·5756
5 „	·592	·576	·625	·502	·590	·5770
6 „	·596	·585	·632	·511	·594	·5836
7 „	·607	·592	·636	·516	·595	·5892
8 „	·611	·597	·639	·521	·599	·5934
9 „	·614	·601	·641	·521	·599	·5952
10 „	·611	·601	·640	·522	·599	·5946
11 „	·613	·601	·637	·519	·600	·5940
Noon	·608	·597	·632	·515	·596	·5896
1 p.m.	·605	·595	·628	·513	·596	·5874
2 „	·601	·589	·622	·508	·596	·5832
3 „	·598	·582	·617	·503	·595	·5790
4 „	·593	·579	·613	·502	·596	·5766
5 „	·592	·580	·616	·503	·599	·5780
6 „	·592	·584	·622	·510	·605	·5826
7 „	·597	·588	·631	·519	·610	·5890
8 „	·605	·593	·643	·530	·622	·5986
9 „	·611	·594	·648	·532	·626	·6022
10 „	·612	·598	·652	·536	·630	·6056
11 „	·615	·601	·654	·537	·631	·6076
Midnight	29·617	29·602	29·656	29·538	29·630	29·6086
Mean	29·6030	29·5898	29·6334	29·5153	29·6031	29·5889
1 a.m. after Midnight	29·615	29·599	29·654	29·535	29·628	29·6062

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·957	29·664	29·500	29·792	29·889	29·7604
2 „	·953	·662	·495	·789	·881	·7560
3 „	·950	·658	·492	·784	·876	·7520
4 „	·949	·656	·491	·782	·871	·7498
5 „	·952	·654	·492	·784	·871	·7506
6 „	·957	·658	·496	·787	·875	·7546
7 „	·960	·660	·498	·788	·878	·7568
8 „	·960	·660	·500	·789	·882	·7582
9 „	·960	·655	·500	·786	·884	·7570
10 „	·957	·651	·496	·785	·883	·7544
11 „	·956	·646	·496	·782	·884	·7528
Noon	·949	·642	·494	·779	·880	·7488
1 p.m.	·947	·637	·491	·777	·877	·7458
2 „	·940	·633	·489	·773	·874	·7418
3 „	·937	·626	·485	·769	·871	·7376
4 „	·932	·622	·485	·766	·868	·7346
5 „	·931	·620	·484	·764	·869	·7336
6 „	·932	·622	·486	·767	·871	·7356
7 „	·938	·624	·492	·770	·878	·7404
8 „	·945	·632	·500	·775	·888	·7480
9 „	·954	·637	·507	·780	·897	·7550
10 „	·957	·640	·512	·781	·899	·7578
11 „	·962	·638	·513	·780	·898	·7582
Midnight	29·963	29·636	29·514	29·776	29·895	29·7568
Mean	29·9499	29·6430	29·4962	29·7794	29·8808	29·7499
1 a.m. after Midnight	29·962	29·633	29·514	29·771	29·890	29·7540

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·712	29·679	29·695	29·489	29·726	29·6602
2 „	·707	·678	·692	·485	·720	·6564
3 „	·702	·675	·689	·479	·716	·6522
4 „	·703	·679	·689	·478	·715	·6528
5 „	·704	·681	·691	·478	·716	·6540
6 „	·709	·686	·696	·481	·718	·6580
7 „	·714	·687	·700	·485	·720	·6612
8 „	·718	·690	·702	·487	·719	·6632
9 „	·717	·688	·700	·486	·716	·6614
10 „	·715	·690	·697	·485	·711	·6596
11 „	·712	·688	·696	·484	·706	·6572
Noon	·712	·691	·693	·481	·698	·6550
1 p.m.	·706	·690	·689	·481	·692	·6516
2 „	·703	·688	·686	·479	·687	·6486
3 „	·695	·684	·681	·478	·681	·6438
4 „	·691	·682	·678	·476	·678	·6410
5 „	·689	·679	·677	·475	·679	·6398
6 „	·693	·683	·679	·476	·682	·6426
7 „	·695	·681	·682	·479	·686	·6446
8 „	·704	·690	·686	·485	·694	·6518
9 „	·709	·695	·694	·492	·700	·6580
10 „	·712	·702	·698	·496	·705	·6626
11 „	·710	·702	·699	·496	·706	·6626
Midnight	29·705	29·702	29·698	29·495	29·705	29·6610
Mean	29·7057	29·6871	29·6911	29·4836	29·7032	29·6541
1 a.m. after Midnight	29·699	29·699	29·694	29·492	29·700	29·6568

GLASGOW.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·766	29·567	29·808	29·490	29·622	29·6506
2 „	·760	·562	·806	·484	·619	·6462
3 „	·755	·556	·801	·481	·614	·6414
4 „	·750	·552	·801	·478	·611	·6384
5 „	·749	·551	·802	·479	·611	·6384
6 „	·751	·554	·806	·481	·614	·6412
7 „	·752	·555	·809	·487	·617	·6440
8 „	·754	·559	·814	·488	·618	·6466
9 „	·754	·558	·813	·491	·616	·6464
10 „	·757	·560	·812	·489	·616	·6468
11 „	·755	·558	·812	·489	·612	·6452
Noon	·758	·560	·812	·488	·609	·6454
1 p.m.	·756	·558	·808	·487	·607	·6432
2 „	·758	·558	·805	·486	·605	·6424
3 „	·756	·554	·799	·484	·602	·6390
4 „	·756	·552	·793	·483	·601	·6370
5 „	·754	·552	·793	·484	·598	·6362
6 „	·755	·559	·795	·487	·604	·6400
7 „	·757	·561	·799	·489	·606	·6424
8 „	·761	·566	·805	·493	·615	·6480
9 „	·765	·571	·813	·495	·620	·6528
10 „	·769	·575	·819	·498	·628	·6578
11 „	·765	·573	·820	·495	·627	·6560
Midnight	29·763	29·570	29·822	29·491	29·627	29·6546
Mean	29·7573	29·5600	29·8070	29·4874	29·6133	29·6450
1 a.m. after Midnight	29·760	29·563	29·820	29·490	29·624	29·6514

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·661	29·602	29·537	29·490	29·825	29·6230
2 „	·656	·597	·532	·485	·821	·6182
3 „	·650	·597	·526	·479	·817	·6138
4 „	·646	·587	·524	·474	·813	·6088
5 „	·645	·586	·524	·475	·815	·6090
6 „	·649	·588	·528	·478	·819	·6124
7 „	·651	·589	·533	·484	·823	·6160
8 „	·657	·592	·536	·488	·828	·6202
9 „	·656	·593	·536	·489	·829	·6206
10 „	·656	·594	·534	·491	·830	·6210
11 „	·652	·595	·533	·491	·829	·6200
Noon	·651	·594	·529	·490	·825	·6178
1 p.m.	·648	·594	·526	·488	·822	·6156
2 „	·646	·593	·522	·486	·819	·6132
3 „	·645	·590	·517	·487	·814	·6106
4 „	·643	·590	·514	·485	·810	·6084
5 „	·641	·589	·511	·484	·808	·6066
6 „	·644	·592	·513	·484	·812	·6090
7 „	·648	·597	·519	·490	·818	·6144
8 „	·659	·607	·528	·502	829	·6250
9 „	·662	·608	·531	·504	·834	·6278
10 „	·668	·609	·533	·506	·841	·6314
11 „	·665	·607	·530	·507	·840	·6298
Midnight	29·663	29·606	29·525	29·509	29·841	29·6288
Mean	29·6526	29·5957	29·5267	29·4894	29·8234	29·6176
1 a.m. after Midnight	29·658	29·602	29·520	29·508	29·838	29·6252

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·529	29·828	29·622	29·613	29·690	29·6564
2 „	·526	·828	·614	·608	·688	·6528
3 „	·520	·824	·607	·603	·682	·6472
4 „	·515	·824	·602	·599	·679	·6438
5 „	·512	·824	·603	·602	·680	·6442
6 „	·518	·829	·608	·610	·685	·6500
7 „	·525	·836	·614	·621	·691	·6574
8 „	·530	·844	·622	·623	·696	·6630
9 „	·533	·847	·625	·627	·698	·6660
10 „	·536	·847	·630	·628	·701	·6684
11 „	·533	·845	·631	·629	·699	·6674
Noon	·532	·839	·631	·626	·697	·6650
1 p.m.	·531	·835	·634	·623	·693	·6632
2 „	·530	·829	·633	·618	·693	·6606
3 „	·527	·823	·632	·614	·689	·6570
4 „	·526	·820	·632	·610	·686	·6548
5 „	·527	·820	·635	·611	·688	·6562
6 „	·533	·824	·639	·613	·693	·6604
7 „	·539	·829	·644	·617	·698	·6654
8 „	·546	·837	·644	·620	·705	·6704
9 „	·546	·836	·644	·619	·703	·6696
10 „	·549	·839	·640	·614	·705	·6694
11 „	·546	·841	·636	·610	·702	·6670
Midnight	29·543	29·841	29·629	29·602	29·700	29·6630
Mean	29·5313	29·8329	29·6271	29·6150	29·6934	29·6599
1 a.m. after Midnight	29·538	29·839	29·625	29·597	29·698	29·6594

GLASGOW.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·626	29·615	29·415	29·856	29·769	29·6562
2 „	·623	·612	·409	·849	·766	·6518
3 „	·622	·606	·405	·841	·761	·6470
4 „	·625	·603	·401	·840	·759	·6456
5 „	·624	·600	·400	·839	·760	·6446
6 „	·627	·600	·401	·843	·761	·6464
7 „	·631	·607	·404	·849	·763	·6508
8 „	·639	·614	·410	·856	·770	·6578
9 „	·643	·620	·411	·860	·771	·6610
10 „	·643	·622	·416	·865	·774	·6640
11 „	·645	·622	·415	·866	·770	·6636
Noon	·638	·619	·411	·864	·763	·6590
1 p.m.	·632	·612	·407	·858	·753	·6524
2 „	·630	·603	·401	·858	·749	·6482
3 „	·627	·598	·398	·857	·742	·6444
4 „	·628	·597	·399	·858	·741	·6446
5 „	·630	·598	·405	·863	·746	·6484
6 „	·638	·604	·413	·871	·754	·6560
7 „	·642	·604	·419	·877	·757	·6598
8 „	·645	·603	·422	·880	·764	·6628
9 „	·645	·605	·422	·880	·765	·6634
10 „	·646	·610	·423	·880	·770	·6658
11 „	·643	·613	·421	·876	·766	·6638
Midnight	29·644	29·615	29·421	29·874	29·766	29·6640
Mean	29·6348	29·6084	29·4104	29·8608	29·7608	29·6551
1 a.m. after Midnight	29·645	29·612	29·417	29·869	29·763	29·6612

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29 636	29·188	29·612	30 038	29·588	29·6124
2 „	·635	·189	·610	·034	·584	·6104
3 „	·630	·189	·606	·029	·578	·6064
4 „	·628	·192	·602	·027	·572	·6042
5 „	·628	·197	·603	·028	·566	·6044
6 „	·631	·202	·605	·027	·565	·6060
7 „	·634	·208	·607	·031	·564	·6088
8 „	·641	·220	·615	·036	·571	·6166
9 „	·643	·227	·620	·038	·571	·6198
10 „	·648	·231	·626	·042	·579	·6252
11 „	·648	·231	·625	·042	·580	·6252
Noon	·642	·218	·619	·035	·580	·6188
1 p.m.	·632	·207	·613	·026	·574	·6104
2 „	·622	·194	·607	·021	·575	·6038
3 „	·617	·185	·605	·018	·574	·5998
4 „	·615	·179	·607	·020	·578	·5998
5 „	·614	·173	·610	·023	·586	·6012
6 „	·617	·169	·613	·028	·601	·6056
7 „	·613	·166	·613	·030	·598	·6040
8 „	·615	·162	·614	·033	·603	·6054
9 „	·615	·157	·612	·034	·597	·6030
10 „	·614	·153	·612	·038	·603	·6040
11 „	·614	·149	·609	·037	·597	·6012
Midnight	29·613	29·151	29·607	30·037	29·592	29·6000
Mean	29·6269	29·1890	29·6113	30·0313	29·5823	29·6082
1 a.m. after Midnight	29·608	29·150	29·603	30·031	29·582	29·5948

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·175	29·628	29·484	29·958	29·553	29·5596
2 „	·173	·631	·478	·962	·555	·5598
3 „	·171	·630	·472	·962	·553	·5576
4 „	·166	·627	·465	·959	·550	·5534
5 „	·162	·620	·458	·957	·546	·5486
6 „	·161	·620	·455	·958	·545	·5478
7 „	·162	·624	·456	·959	·544	·5490
8 „	·167	·632	·464	·957	·547	·5534
9 „	·174	·641	·471	·960	·554	·5600
10 „	·181	·651	·475	·968	·563	·5676
11 „	·180	·652	·477	·964	·560	·5666
Noon	·174	·643	·471	·953	·561	·5604
1 p.m.	·166	·639	·467	·940	·554	·5532
2 „	·158	·638	·466	·932	·555	·5498
3 „	·155	·639	·466	·922	·551	·5466
4 „	·156	·643	·468	·920	·557	·5488
5 „	·157	·643	·466	·919	·557	·5484
6 „	·158	·652	·470	·924	·564	·5536
7 „	·158	·655	·474	·924	·560	·5542
8 „	·162	·663	·477	·930	·566	·5596
9 „	·161	·666	·477	·934	·564	·5604
10 „	·163	·669	·479	·937	·568	·5632
11 „	·159	·666	·476	·939	·566	·5612
Midnight	29·160	29·669	29·473	29·940	29·566	29·5616
Mean	29·1649	29·6434	29·4702	29·9449	29·5566	29·5560
1 a.m. after Midnight	29·155	29·667	29·468	29·937	29·562	29·5578

GLASGOW.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·6053	29·5666	29·6561	29·6708	29·7048	29·6406
2 „	·6023	·5642	·6526	·6672	·7018	·6375
3 „	·5982	·5603	·6483	·6623	·6979	·6333
4 „	·5951	·5572	·6455	·6596	·6953	·6304
5 „	·5940	·5558	·6448	·6597	·6953	·6298
6 „	·5969	·5587	·6471	·6625	·6977	·6325
7 „	·6010	·5623	·6498	·6671	·7008	·6361
8 „	·6061	·5684	·6551	·6708	·7058	·6411
9 „	·6087	·5715	·6571	·6728	·7083	·6436
10 „	·6100	·5742	·6579	·6753	·7113	·6456
11 „	·6104	·5742	·6576	·6747	·7106	·6454
Noon	·6063	·5707	·6533	·6713	·7075	·6417
1 p.m.	·6014	·5665	·6483	·6668	·7024	·6370
2 „	·5973	·5619	·6434	·6628	·6991	·6328
3 „	·5944	·5573	·6396	·6598	·6948	·6290
4 „	·5923	·5568	·6383	·6593	·6938	·6280
5 „	·5925	·5569	·6394	·6607	·6946	·6287
6 „	·5959	·5621	·6435	·6655	·7000	·6333
7 „	·5992	·5643	·6475	·6689	·7025	·6364
8 „	·6038	·5697	·6525	·6743	·7086	·6416
9 „	·6067	·5713	·6552	·6762	·7098	·6437
10 „	·6086	·5739	·6577	·6775	·7136	·6462
11 „	·6073	·5730	·6568	·6762	·7116	·6449
Midnight	29·6064	29·5737	29·6560	29·6744	29·7107	29·6441
Mean	29·6017	29·5655	29·6501	29·6682	29·7033	29·6376
1 a.m. after Midnight	29·6023	29·5704	29·6530	29·6708	29·7068	29·6407

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	−·0053	+·0040	+·0066	+·0057	+·0072	+·0043	+·0057	+·0062	−·0020	+·0034	−·0040	+·0026	+·0028
2 „	−·0047	+·0008	+·0029	+·0014	+·0030	+·0007	+·0012	+·0013	−·0057	−·0012	−·0052	+·0029	−·0003
3 „	−·0049	−·0059	−·0033	−·0027	−·0007	−·0034	−·0036	−·0032	−·0114	−·0062	−·0085	+·0007	−·0045
4 „	−·0085	−·0096	−·0073	−·0058	−·0026	−·0027	−·0066	−·0083	−·0149	−·0078	−·0100	−·0034	−·0074
5 „	−·0107	−·0107	−·0094	−·0053	−·0015	−·0013	−·0067	−·0082	−·0147	−·0090	−·0090	−·0081	−·0080
6 „	−·0098	−·0103	−·0082	+·0004	+·0027	+·0028	−·0039	−·0049	−·0090	−·0074	−·0067	−·0088	−·0053
7 „	−·0070	−·0078	−·0033	+·0051	+·0052	+·0062	−·0011	−·0014	−·0017	−·0032	−·0032	−·0076	−·0017
8 „	+·0018	+·0001	+·0015	+·0084	+·0068	+·0083	+·0015	+·0028	+·0038	+·0036	+·0053	−·0031	+·0033
9 „	+·0096	+·0034	+·0051	+·0092	+·0059	+·0066	+·0012	+·0031	+·0066	+·0065	+·0093	+·0036	+·0058
10 „	+·0162	+·0065	+·0060	+·0077	+·0036	+·0050	+·0016	+·0034	+·0089	+·0093	+·0154	+·0113	+·0078
11 „	+·0187	+·0111	+·0054	+·0062	+·0023	+·0027	±·0000	+·0023	+·0078	+·0087	+·0161	+·0103	+·0076
Noon	+·0121	+·0084	+·0027	+·0009	−·0015	+·0007	+·0001	±·0000	+·0052	+·0039	+·0105	+·0042	+·0039
1 p.m.	+·0035	+·0017	−·0013	−·0022	−·0042	−·0026	−·0021	−·0023	+·0033	−·0029	+·0028	−·0029	−·0008
2 „	−·0017	−·0052	−·0081	−·0073	−·0079	−·0055	−·0029	−·0048	+·0006	−·0073	−·0031	−·0062	−·0050
3 „	−·0039	−·0099	−·0122	−·0124	−·0119	−·0101	−·0064	−·0075	−·0032	−·0113	−·0063	−·0093	−·0088
4 „	−·0030	−·0101	−·0138	−·0157	−·0146	−·0128	−·0084	−·0098	−·0055	−·0113	−·0056	−·0071	−·0098
5 „	−·0016	−·0072	−·0121	−·0152	−·0153	−·0138	−·0092	−·0117	−·0042	−·0077	−·0035	−·0074	−·0091
6 „	+·0010	+·0011	−·0045	−·0116	−·0130	−·0109	−·0055	−·0094	−·0002	−·0004	+·0017	−·0021	−·0045
7 „	+·0010	+·0034	+·0017	−·0061	−·0080	−·0088	−·0031	−·0040	+·0047	+·0032	+·0008	−·0014	−·0014
8 „	+·0020	+·0055	+·0064	+·0026	−·0001	−·0014	+·0025	+·0065	+·0096	+·0060	+·0029	+·0040	+·0038
9 „	+·0019	+·0053	+·0086	+·0053	+·0071	+·0049	+·0073	+·0092	+·0087	+·0064	+·0012	+·0049	+·0059
10 „	+·0021	+·0076	+·0105	+·0078	+·0102	+·0097	+·0122	+·0127	+·0083	+·0086	+·0030	+·0078	+·0084
11 „	−·0013	+·0063	+·0099	+·0089	+·0109	+·0098	+·0104	+·0110	+·0058	+·0064	+·0009	+·0059	+·0071
Midnight	−·0023	+·0074	+·0099	+·0090	+·0098	+·0083	+·0090	+·0099	+·0017	+·0064	+·0004	+·0063	+·0063
1 a.m.	−·0053	+·0040	+·0066	+·0057	+·0072	+·0043	+·0057	+·0062	−·0020	+·0034	−·0040	+·0026	+·0028
Mean†	29·8049	29·5125	29·5995	29·5896	29·7500	29·6542	29·6453	29·6179	29·6599	29·6553	29·6076	29·5561	29·6378

* A correction for non-periodicity has been applied to all the values in this table. † Of twenty-five hours.

ABERDEEN.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·997	29·541	29·850	29·931	30·083	29·8804
2 „	·998	·538	·849	·933	·086	·8808
3 „	·998	·531	·851	·933	·084	·8794
4 „	·995	·524	·852	·932	·085	·8776
5 „	·992	·518	·851	·930	·087	·8756
6 „	29·994	·516	·853	·934	·089	·8772
7 „	30·001	·514	·861	·938	·091	·8810
8 „	·013	·518	·869	·947	·101	·8896
9 „	·022	·526	·879	·957	·109	·8986
10 „	·028	·531	·883	·965	·114	·9042
11 „	·030	·537	·889	·971	·118	·9090
Noon	·021	·533	·882	·969	·115	·9040
1 p.m.	·015	·533	·875	·964	·108	·8990
2 „	·014	·533	·874	·962	·106	·8978
3 „	·014	·537	·873	·961	·105	·8980
4 „	·014	·540	·876	·963	·105	·8996
5 „	·016	·546	·876	·966	·106	·9020
6 „	·021	·552	·876	·971	·105	·9050
7 „	·020	·558	·876	·970	·108	·9064
8 „	·021	·565	·877	·972	·110	·9090
9 „	·018	·568	·873	·974	·105	·9076
10 „	·017	·570	·868	·975	·104	·9068
11 „	·011	·569	·865	·974	·108	·9054
Midnight	30·010	29·567	29·864	29·971	30·108	29·9040
Mean	30·0117	29 5402	29·8684	29·9568	30·1017	29·8958
1 a.m. after Midnight	30·004	29·564	29·863	29·967	30·106	29·9008

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years
1 a.m.	29·575	29·572	30·022	29·447	29·453	29·6138
2 „	·571	·569	·020	·446	·446	·6104
3 „	·563	·567	·015	·440	·440	·6050
4 „	·558	·562	·009	·434	·436	·5998
5 „	·552	·558	·003	·431	·436	·5960
6 „	·549	·553	30·000	·429	·440	·5942
7 „	·549	·553	29·999	·432	·448	·5962
8 „	·555	·556	30·000	·438	·456	·6010
9 „	·558	·557	29·999	·438	·466	·6036
10 „	·559	·557	·997	·440	·473	·6052
11 „	·559	·563	·997	·443	·477	·6078
Noon	·558	·568	·988	·438	·478	·6060
1 p.m.	·549	·568	·976	·429	·474	·5992
2 „	·543	·566	·964	·422	·468	·5926
3 „	·543	·564	·956	·418	·463	·5888
4 „	·548	·566	·957	·418	·459	·5896
5 „	·551	·571	·962	·423	·463	·5940
6 „	·559	·574	·971	·431	·463	·5996
7 „	·561	·579	·974	·435	·458	·6014
8 „	·563	·580	·979	·436	·454	·6024
9 „	·563	·583	·980	·438	·444	·6016
10 „	·565	·589	·983	·438	·439	·6028
11 „	·567	·590	·986	·438	·430	·6022
Midnight	29·569	29·591	29·986	29·438	29·422	29·6012
Mean	29·5578	29·5690	29·9885	29·4342	29·4536	29·6006
1 a.m. after Midnight	29·563	29·592	29·985	29·433	29·413	29·5972

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·249	29·581	29·858	29·834	29·944	29·6932
2 „	·249	·573	·852	·831	·939	·6888
3 „	·243	·565	·844	·821	·934	·6814
4 „	·239	·558	·839	·815	·930	·6762
5 „	·239	·555	·838	·813	·932	·6754
6 „	·240	·555	·837	·810	·937	·6758
7 „	·241	·558	·837	·810	·939	·6770
8 „	·248	·560	·837	·813	·947	·6810
9 „	·249	·563	·835	·816	·956	·6838
10 „	·252	·562	·835	·819	·960	·6856
11 „	·253	·567	·835	·822	·964	·6882
Noon	·251	·566	·830	·820	·965	·6864
1 p.m.	·246	·561	·824	·814	·962	·6814
2 „	·240	·559	·822	·808	·957	·6772
3 „	·234	·559	·817	·803	·952	·6730
4 „	·232	·558	·820	·803	·949	·6724
5 „	·234	·562	·826	·804	·952	·6756
6 „	·239	·568	·835	·810	·957	·6818
7 „	·241	·574	·842	·816	·962	·6870
8 „	·243	·577	·845	·820	·965	·6900
9 „	·246	·576	·847	·823	·966	·6916
10 „	·248	·574	·848	·824	·966	·6920
11 „	·250	·572	·846	·825	·964	·6914
Midnight	29·254	29·571	29·842	29·823	29·960	29·6900
Mean	29·2442	29·5656	29·8371	29·8165	29·9525	29·6832
1 a.m. after Midnight	29·250	29·566	29·837	29·820	29·958	29·6862

ABERDEEN.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·711	29·760	29·792	29·660	29·707	29·7260
2 „	·710	·756	·785	·656	·705	·7224
3 „	·709	·751	·782	·653	·702	·7194
4 „	·709	·748	·777	·651	·699	·7168
5 „	·710	·748	·776	·654	·702	·7180
6 „	·718	·753	·782	·661	·708	·7244
7 „	·725	·760	·787	·667	·713	·7304
8 „	·733	·768	·789	·673	·715	·7356
9 „	·736	·774	·793	·678	·716	·7394
10 „	·737	·776	·796	·681	·718	·7416
11 „	·734	·783	·798	·682	·717	·7428
Noon	·731	·785	·801	·682	·716	·7430
1 p.m.	·730	·786	·802	·682	·713	·7426
2 „	·726	·784	·801	·681	·711	·7406
3 „	·721	·780	·798	·677	·706	·7364
4 „	·720	·778	·798	·676	·707	·7358
5 „	·720	·778	·799	·676	·709	·7364
6 „	·721	·781	·803	·680	·717	·7404
7 „	·726	·785	·811	·686	·726	·7468
8 „	·732	·789	·819	·693	·735	·7536
9 „	·732	·789	·822	·693	·739	·7550
10 „	·732	·786	·824	·693	·742	7554
11 „	·731	·785	·824	·692	·743	·7550
Midnight	29·730	29·783	29·823	29·691	29·744	29·7542
Mean	29·7243	29·7736	29·7993	29·6758	29·7171	29·7380
1 a.m. after Midnight	29·726	29·778	29·819	29·688	29·740	29·7502

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·057	29·789	29·625	29·896	29·990	29·8714
2 „	·054	·784	·624	·894	·981	8674
3 „	·048	·781	·622	·890	·974	·8630
4 „	·045	·779	·620	·886	·969	·8598
5 „	·048	·778	·623	·888	·971	·8616
6 „	·053	·781	·628	·890	·974	·8652
7 „	·057	·782	·631	·891	·977	·8676
8 „	·060	·783	·634	·893	·980	·8700
9 „	·062	·783	·635	·893	·981	·8708
10 „	·063	·781	·636	·892	·983	·8710
11 „	·063	·780	·634	·892	·985	·8708
Noon	·063	·778	·632	·889	·987	·8698
1 p.m.	·062	·777	·630	·885	·986	·8680
2 „	·062	·776	·626	·885	·986	·8670
3 „	·058	·771	·621	·881	·983	·8628
4 „	·058	·768	·619	·878	·983	·8612
5 „	·056	·765	·618	·875	·983	·8594
6 „	·059	·765	·623	·874	·989	·8620
7 „	·063	·769	·627	·877	29·995	·8662
8 „	·067	·773	·634	·882	30·004	·8720
9 „	·070	·776	·640	·883	·008	·8754
10 „	·071	·775	·641	·882	·010	·8758
11 „	·067	·774	·641	·879	·007	·8736
Midnight	30·065	29·770	29·641	29·875	30·002	29·8706
Mean	30·0596	29·7766	29·6294	29·8854	29·9870	29·8676
1 a.m. after Midnight	30·062	29·765	29·638	29·872	29·994	29·8662

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·836	29·799	29·833	29·618	29·846	29·7864
2 „	·830	·793	·828	·616	·840	·7814
3 „	·823	·791	·822	·611	·836	·7766
4 „	·822	·792	·820	·612	·835	·7762
5 „	·821	·794	·821	·613	·835	·7768
6 „	·820	798	·825	·617	·838	·7796
7 „	·823	·800	·829	·621	·841	·7828
8 „	·828	·806	·832	·626	·842	·7868
9 „	·827	·807	·834	·626	·841	·7870
10 „	·829	·806	·835	·628	·841	·7878
11 „	·827	·807	·837	·630	·840	·7882
Noon	·826	·807	·838	·627	·838	·7872
1 p.m.	·824	·807	·838	·625	·835	·7858
2 „	·823	·807	·838	·625	·833	·7852
3 „	·821	·804	·836	·623	·830	·7828
4 „	·818	·803	·831	·619	·826	·7794
5 „	·816	·802	·828	·617	·822	·7770
6 „	·817	·803	·831	·619	·821	·7782
7 „	·818	·805	·834	·621	·823	·7802
8 „	·823	·808	·837	·627	·824	·7838
9 „	·830	·813	·841	632	·829	·7890
10 „	·833	·813	·841	·634	·831	·7904
11 „	·831	·812	·840	·633	·828	·7888
Midnight	29·828	29·809	29·837	29·629	29·826	29·7858
Mean	29·8247	29·8036	29·8328	29·6229	29·8334	29·7835
1 a.m, after Midnight	29·824	29·810	29·833	29·625	29·818	29·7820

ABERDEEN.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·842	29·654	29·895	29·603	29·740	29·7468
2 „	·838	·648	·890	·598	·735	·7418
3 „	·832	·642	·885	·594	·730	·7366
4 „	·832	·640	·883	·592	·727	·7348
5 „	·833	·640	·885	·592	·728	·7356
6 „	·833	·643	·888	·592	·732	·7376
7 „	·835	·645	·891	·596	·737	·7408
8 „	·835	·646	·894	·598	·740	·7426
9 „	·832	·645	·896	·599	·741	·7426
10 „	·828	·643	·897	·600	·741	·7418
11 „	·825	·643	·899	·601	·742	·7420
Noon	·823	·642	·899	·600	·740	·7408
1 p.m.	·817	·640	·899	·599	·740	·7390
2 „	·817	·641	·897	·597	·740	·7384
3 „	·813	·639	·894	·594	·738	·7356
4 „	·813	·635	·891	·593	·737	·7338
5 „	·812	·636	·892	·593	·736	·7338
6 „	·820	·640	·894	·595	·735	·7368
7 „	·824	·645	·899	·598	·739	·7410
8 „	·831	·649	·906	·602	·743	·7462
9 „	·838	·656	·911	·607	·747	·7518
10 „	·842	·657	·913	·609	·750	·7542
11 „	·839	·656	·911	·607	·749	·7524
Midnight	29·838	29·654	29·909	29·604	29·746	29·7502
Mean	29·8289	29·6490	29·8966	29·5985	29·7389	29·7415
1 a.m. after Midnight	29·833	29·649	29·907	29·601	29·744	29·7468

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·763	29·727	29·690	29·596	29·943	29·7438
2 „	·761	·722	·686	·591	·940	·7400
3 „	·756	·715	·677	·588	·935	·7342
4 „	·756	·711	·673	·587	·933	·7320
5 „	·756	·707	·671	·589	·932	·7310
6 „	·758	·709	·671	·591	·935	·7328
7 „	·761	·711	·672	·596	·941	·7362
8 „	·762	·713	·677	·600	·945	·7394
9 „	·762	·714	·679	·604	·947	·7412
10 „	·761	·716	·679	·603	·950	·7418
11 „	·759	·720	·681	·604	·951	·7430
Noon	·756	·718	·679	·604	·951	·7416
1 p.m.	·752	·718	·678	·603	·949	·7400
2 „	·749	·722	·676	·603	·947	·7394
3 „	·747	·721	·673	·599	·944	·7368
4 „	·745	·721	·671	·599	·942	·7356
5 „	·743	·723	·669	·601	·940	·7352
6 „	·747	·726	·672	·603	·943	·7382
7 „	·751	·730	·677	·608	·949	·7430
8 „	·761	·738	·682	·616	·957	·7508
9 „	·765	·737	·684	·618	·961	·7530
10 „	·768	·738	·684	·618	·963	·7542
11 „	·768	·736	·682	·618	·963	·7534
Midnight	29·767	29·731	29·678	29·615	29·960	29·7502
Mean	29·7573	29·7223	29·6775	29·6023	29·9467	29·7411
1 a.m. after Midnight	29·763	29·726	29·672	29·611	29·956	29·7456

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·648	29·921	29 700	29·704	29·789	29·7524
2 „	·645	·920	·696	·699	·786	·7492
3 „	·638	·916	·689	·693	·780	·7432
4 „	·634	·912	·687	·687	·774	·7388
5 „	·632	·911	·688	·686	·776	·7386
6 „	·633	·915	·696	·692	·782	·7436
7 „	·635	·918	·699	·698	·789	·7478
8 „	·636	·923	·703	·703	·793	·7516
9 „	·639	·928	·709	·706	·794	·7552
10 „	·641	·930	·712	·707	·793	·7566
11 „	·645	·930	·713	·709	·794	·7582
Noon	·647	·933	·713	·706	·793	·7584
1 p.m.	·647	·930	·711	·705	·790	·7566
2 „	·646	·929	·709	·701	·787	·7544
3 „	·644	·925	·710	·697	·786	·7524
4 „	·641	·926	·712	·697	·785	·7522
5 „	·647	·927	·716	·700	·788	·7556
6 „	·652	·933	·720	·705	·794	·7608
7 „	·658	·939	·727	·712	·803	·7678
8 „	·664	·944	·727	·716	·808	·7718
9 „	·666	·945	·724	·714	·805	·7708
10 „	·665	·945	·721	·710	·804	·7690
11 „	·664	·941	·716	·705	·801	·7654
Midnight	29·662	29·938	29·711	29·700	29·799	29·7620
Mean	29·6470	29·9283	29·7087	29·7022	29·7914	29 7555
1 a.m. after Midnight	29·659	29·935	29·705	29·694	29·796	29·7578

ABERDEEN.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m	29·756	29·698	29·516	29·930	29·872	29·7544
2 „	·753	·695	·514	·924	·868	·7508
3 „	·752	·690	·510	·915	·859	·7452
4 „	·754	·689	·510	·911	·855	·7438
5 „	·759	·686	·510	·909	·854	·7436
6 „	·762	·687	·514	·910	·855	·7456
7 „	·775	·688	·518	·915	·858	·7508
8 „	·782	·689	·523	·926	·862	·7564
9 „	·787	·691	·524	·930	·864	·7592
10 „	·790	·693	·525	·933	·864	·7610
11 „	·792	·696	·528	·934	·863	·7626
Noon	·785	·693	·523	·934	·860	·7590
1 p.m.	·779	·685	·517	·931	·854	·7532
2 „	·769	·679	·512	·933	·849	·7484
3 „	·760	·676	·510	·933	·845	·7448
4 „	·757	·675	·507	·935	·844	·7436
5 „	·761	·679	·510	·938	·844	·7464
6 „	·768	·680	·512	·946	·854	·7520
7 „	·772	·683	·516	·949	·858	·7556
8 „	·775	·685	·515	·951	·862	·7576
9 „	·776	·683	·514	·953	·864	·7580
10 „	·777	·688	·515	·950	·866	·7592
11 „	·775	·686	·515	·945	·869	·7580
Midnight	29·771	29·688	29·517	29·944	29·868	29·7576
Mean	29·7704	29·6868	29·5156	29·9325	29·8588	29·7528
1 a.m. after Midnight	29·771	29·689	29·518	29·939	29·864	29·7562

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·785	29·252	29·692	30·103	29·671	29·7006
2 „	·783	·253	·689	·101	·668	·6988
3 „	·778	·253	·683	·096	·661	·6942
4 „	·775	·256	·682	·092	·656	·6922
5 „	·775	·260	·683	·092	·651	·6922
6 „	·776	·266	·683	·094	·647	·6932
7 „	·780	·274	·688	·098	·646	·6972
8 „	·787	·288	·697	·103	·647	·7044
9 „	·789	·295	·701	·107	·648	·7080
10 „	·794	·301	·705	·110	·649	·7118
11 „	·794	·306	·706	·110	·653	·7138
Noon	·789	·301	·698	·103	·648	·7078
1 p.m.	·782	·296	·692	·097	·645	·7024
2 „	·777	·287	·688	·092	·642	·6972
3 „	·773	·282	·688	·091	·640	·6948
4 „	·771	·279	·690	·094	·644	·6956
5 „	·773	·273	·692	·096	·650	·6968
6 „	·773	·265	·695	·102	·657	·6984
7 „	·774	·256	·694	·105	·661	·6980
8 „	·775	·249	·693	·106	·666	·6978
9 „	·776	·241	·691	·104	·668	·6960
10 „	·774	·240	·690	·102	·669	·6950
11 „	·770	·232	·688	·102	·669	·6922
Midnight	29·768	29·235	29·685	30·102	29·670	29·6900
Mean	29·7788	29·2679	29·6914	30·1001	29·6553	29·6987
1 a.m. after Midnight	29·762	29·219	29·682	30·096	29·666	29·6850

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·366	29·684	29·565	30·007	29·607	29·6458
2 „	·363	·688	·561	·009	·608	·6458
3 „	·360	·688	·555	·009	·607	·6438
4 „	·354	·682	·545	·010	·602	·6386
5 „	·351	·680	·536	·010	·595	·6344
6 „	·351	·678	·530	·012	·593	·6328
7 „	·351	·680	·532	·015	·590	·6336
8 „	·355	·684	·540	·018	·594	·6382
9 „	·361	·690	·546	·021	·600	·6436
10 „	·368	·700	·553	·027	·606	·6508
11 „	·367	·705	·556	·022	·608	·6516
Noon	·359	·698	·553	·016	·606	·6464
1 p.m.	·352	·695	·551	30·006	·600	·6408
2 „	·348	·697	·550	29·998	·603	·6392
3 „	·346	·700	·552	·994	·602	·6388
4 „	·349	·705	·553	·989	·605	·6402
5 „	·352	·707	·551	·984	·604	·6396
6 „	·352	·712	·551	·980	·607	·6404
7 „	·353	·717	·549	·979	·610	·6416
8 „	·355	·720	·552	·975	·617	·6438
9 „	·355	·723	·553	·973	·620	·6448
10 „	·357	·725	·552	·979	·622	·6470
11 „	·355	·724	·550	·984	·621	·6468
Midnight	29·352	29·725	29·549	29·988	29·621	29·6470
Mean	29·3555	29·7003	29·5494	30·0002	29·6062	29·6423
1 a.m. after Midnight	29·346	29·723	29·545	29·987	29·615	29·6432

ABERDEEN.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·7158	29·6648	29·7532	29·7774	29·8038	29·7429
2 „	·7133	·6618	·7495	·7748	·8002	·7398
3 „	·7089	·6575	·7446	·7703	·7952	·7352
4 „	·7066	·6544	·7414	·7674	·7918	·7322
5 „	·7060	·6529	·7404	·7673	·7916	·7316
6 „	·7082	·6545	·7423	·7693	·7942	·7335
7 „	·7116	·6569	·7453	·7731	·7975	·7368
8 „	·7167	·6612	·7496	·7782	·8018	·7414
9 „	·7192	·6644	·7525	·7813	·8053	·7444
10 „	·7214	·6663	·7544	·7838	·8077	·7466
11 „	·7213	·6698	·7561	·7850	·8093	·7482
Noon	·7180	·6685	·7530	·7823	·8081	·7459
1 p.m.	·7135	·6663	·7494	·7783	·8047	·7423
2 „	·7100	·6650	·7464	·7756	·8024	·7398
3 „	·7067	·6632	·7440	·7726	·7995	·7371
4 „	·7062	·6628	·7438	·7720	·7988	·7366
5 „	·7072	·6641	·7449	·7728	·7998	·7377
6 „	·7110	·6666	·7486	·7763	·8035	·7411
7 „	·7139	·6700	·7522	·7797	·8077	·7446
8 „	·7181	·6731	·7555	·7830	·8121	·7482
9 „	·7202	·6742	·7567	·7843	·8130	·7496
10 „	·7212	·6750	·7567	·7845	·8138	·7502
11 „	·7196	·6731	·7553	·7835	·8127	·7487
Midnight	29·7184	29·6710	29·7535	29·7817	29·8105	29·7469
Mean	29·7139	29·6649	29·7496	29·7773	29·8035	29·7417
1 a.m. after Midnight	29·7136	29·6680	29·7503	29·7778	29·8058	29·7431

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	−·0054	+·0050	+·0064	−·0004	+·0013	+·0008	+·0051	+·0034	−·0005	+·0024	−·0053	+·0022	+·0012
2 „	−·0058	+·0023	+·0023	−·0050	−·0025	−·0040	+·0001	−·0005	−·0039	−·0013	−·0065	+·0023	−·0019
3 „	−·0081	−·0024	−·0048	−·0090	−·0067	−·0086	−·0051	−·0063	−·0101	−·0069	−·0104	+·0004	−·0065
4 „	−·0107	−·0069	−·0097	−·0126	−·0096	−·0088	−·0069	−·0086	−·0148	−·0084	−·0118	−·0047	−·0095
5 „	−·0136	−·0100	−·0102	−·0124	−·0076	−·0081	−·0061	−·0097	−·0152	−·0087	−·0111	−·0088	−·0101
6 „	−·0128	−·0111	−·0095	−·0070	−·0038	−·0051	−·0041	−·0080	−·0104	−·0068	−·0095	−·0103	−·0082
7 „	−·0099	−·0085	−·0081	−·0021	−·0012	−·0017	−·0009	−·0046	−·0064	−·0016	−·0048	−·0094	−·0050
8 „	−·0021	−·0030	−·0038	+·0021	+·0014	+·0025	+·0009	−·0015	−·0029	+·0039	+·0030	−·0046	−·0004
9 „	+·0060	+·0003	−·0007	+·0049	+·0024	+·0029	+·0009	+·0002	+·0005	+·0066	+·0073	+·0009	+·0026
10 „	+·0108	+·0026	+·0014	+·0061	+·0029	+·0039	+·0001	+·0007	+·0017	+·0083	+·0117	+·0082	+·0048
11 „	+·0147	+·0059	+·0043	+·0063	+·0029	+·0044	+·0003	+·0019	+·0031	+·0099	+·0144	+·0091	+·0064
Noon	+·0089	+·0048	+·0028	+·0055	+·0021	+·0036	−·0009	+·0004	+·0030	+·0062	+·0090	+·0040	+·0041
1 p.m.	+·0030	−·0013	−·0019	+·0041	+·0005	+·0024	−·0027	−·0013	+·0010	+·0003	+·0043	−·0015	+·0005
2 „	+·0009	−·0072	−·0058	+·0011	−·0003	+·0020	−·0033	−·0020	−·0014	−·0046	−·0002	−·0030	−·0020
3 „	+·0003	−·0103	−·0097	−·0041	−·0043	−·0002	−·0061	−·0047	−·0037	−·0083	−·0020	−·0033	−·0047
4 „	+·0010	−·0088	−·0100	−·0057	−·0057	−·0035	−·0079	−·0059	−·0041	−·0095	−·0005	−·0018	−·0052
5 „	+·0026	−·0037	−·0065	−·0061	−·0072	−·0057	−·0079	−·0064	−·0009	−·0068	+·0013	−·0023	−·0041
6 „	+·0047	+·0026	±·0000	−·0031	−·0044	−·0043	−·0049	−·0035	+·0041	−·0013	+·0036	−·0014	−·0007
7 „	+·0053	+·0051	+·0055	+·0023	±·0000	−·0021	−·0007	+·0012	+·0108	+·0022	+·0038	±·0000	+·0028
8 „	+·0070	+·0067	+·0087	+·0080	+·0060	+·0017	+·0045	+·0090	+·0146	+·0042	+·0043	+·0023	+·0063
9 „	+·0048	+·0066	+·0106	+·0084	+·0096	+·0071	+·0101	+·0111	+·0134	+·0045	+·0031	+·0034	+·0077
10 „	+·0031	+·0085	+·0113	+·0078	+·0102	+·0086	+·0125	+·0122	+·0114	+·0056	+·0028	+·0057	+·0083
11 „	+·0009	+·0086	+·0110	+·0064	+·0083	+·0072	+·0107	+·0113	+·0075	+·0043	+·0006	+·0056	+·0068
Midnight	−·0014	+·0083	+·0099	+·0046	+·0055	+·0044	+·0085	+·0081	+·0039	+·0039	−·0009	+·0059	+·0050
1 a.m.	−·0054	+·0050	+·0064	−·0004	+·0013	+·0008	+·0051	+·0034	−·0005	+·0024	−·0053	+·0022	+·0012
Mean†	29·8960	29·6005	29·6833	29·7385	29·8675	29·7834	29·7417	29·7413	29·7556	29·7529	29·6981	29·6423	29·7418

* A correction for non-periodicity has been applied to all the values in this table.

† Of twenty-five hours.

FALMOUTH.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·026	29·600	30·004	29·705	30·107	29·8884
2 „	·024	·597	·005	·706	·104	·8872
3 „	·025	·590	·005	·707	·100	·8854
4 „	·019	·580	30·000	·705	·094	·8796
5 „	·013	·572	29·995	·703	·092	·8750
6 „	·011	·569	·994	·703	·095	·8744
7 „	·019	·571	29·999	·708	·100	·8794
8 „	·029	·576	30·010	·715	·109	·8878
9 „	·038	·584	·018	·723	·118	·8962
10 „	·043	·589	·026	·733	·127	·9036
11 „	·046	·598	·032	·742	·134	·9104
Noon	·036	·591	·024	·732	·126	·9018
1 p.m.	·025	·583	·012	·720	·117	·8914
2 „	·016	·581	·006	·711	·107	·8842
3 „	·018	·586	·007	·711	·104	·8852
4 „	·023	·594	·008	·712	·104	·8882
5 „	·024	·603	·011	·715	·107	·8920
6 „	·031	·612	·013	·720	·113	·8978
7 „	·037	·618	·017	·721	·116	·9018
8 „	·042	·628	·018	·720	·119	·9054
9 „	·043	·634	·019	·718	·120	·9068
10 „	·044	·638	·021	·714	·124	·9082
11 „	·041	·639	·019	·714	·125	·9076
Midnight	30·038	29·640	30·015	29·713	30·122	29·9056
Mean	30·0296	29·5989	30·0116	29·7155	30·1118	29·8935
1 a.m. after Midnight	30·033	29·636	30·011	29·707	30·117	29·9008

FEBRUARY.

——	1876.	1877.	1878	1879.	1880.	Mean of 5 years.
1 a.m.	29·633	29·825	30·050	29·315	29·575	29·6796
2 „	·626	·820	·045	·313	·570	·6748
3 „	·620	·815	·040	·307	·563	·6690
4 „	·614	·811	·033	·301	·555	·6628
5 „	·611	·812	·031	·303	·554	·6622
6 „	·610	·815	·030	·305	·553	·6626
7 „	·611	·817	·035	·307	·550	·6640
8 „	·619	·829	·043	·311	·560	·6724
9 „	·627	·836	·047	·315	·565	·6780
10 „	·632	·842	·050	·319	·568	·6822
11 „	·639	·851	·054	·328	·575	·6894
Noon	·636	·848	·052	·322	·573	·6862
1 p.m.	·628	·843	·039	·314	·568	·6784
2 „	·618	·835	·027	·305	·557	·6684
3 „	·611	·831	·020	·301	·552	·6630
4 „	·610	·832	·019	·302	·551	·6628
5 „	·613	·834	·024	·306	·552	·6658
6 „	·620	·840	·031	·311	·559	·6722
7 „	·624	·844	·036	·316	·564	·6768
8 „	·624	·843	·036	·315	·565	·6766
9 „	·628	·842	·035	·314	·567	·6772
10 „	·629	·841	·032	·313	·566	·6762
11 „	·628	·839	·031	·315	·560	·6746
Midnight	29·626	29·840	30·028	29·319	29·555	29·6736
Mean	29·6224	29·8327	30·0362	29·3115	29·5615	29·6729
1 a.m. after Midnight	29·617	29·838	30·025	29·316	29·550	29·6692

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·432	29·603	29·948	29·762	29·839	29·7168
2 „	·425	·598	·939	·755	·832	·7098
3 „	·413	·591	·931	·747	·824	·7012
4 „	·403	·585	·928	·743	·819	·6956
5 „	·401	·582	·929	·743	·820	·6950
6 „	·401	·584	·931	·746	·823	·6970
7 „	·402	·588	·938	·751	·830	·7018
8 „	·405	·593	·947	·760	·838	·7086
9 „	·411	·597	·953	·765	·842	·7136
10 „	·421	·599	·959	·767	·844	·7180
11 „	·430	·601	·964	·773	·848	·7232
Noon	·435	·597	·960	·771	·845	·7216
1 p.m.	·432	·592	·955	·765	·840	·7168
2 „	·428	·583	·945	·754	·829	·7078
3 „	·424	·577	·938	·749	·825	·7026
4 „	·422	·574	·932	·746	·822	·6992
5 „	·423	·575	·930	·747	·823	·6996
6 „	·429	·580	·935	·752	·829	·7050
7 „	·435	·585	·936	·756	·835	·7094
8 „	·441	·590	·938	·760	·842	·7142
9 „	·443	·593	·937	·761	·844	·7156
10 „	·447	·596	·937	·762	·846	·7176
11 „	·443	·598	·933	·760	·844	·7156
Midnight	29·439	29·598	29·929	29·758	29·842	29·7132
Mean	29·4244	29·5900	29·9405	29·7564	29·8344	29·7091
1 a.m. after Midnight	29·431	29·596	29·925	29·753	29·841	29·7092

FALMOUTH.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·648	29·484	29·566	29·454	29·651	29·5606
2 „	·641	·478	·559	·445	·644	·5534
3 „	·634	·471	·554	·441	·640	·5480
4 „	·629	·466	·550	·437	·634	·5432
5 „	·630	·462	·549	·437	·634	·5424
6 „	·636	·468	·555	·441	·642	·5484
7 „	·641	·473	·561	·447	·648	·5540
8 „	·645	·478	·564	·452	·654	·5586
9 „	·648	·482	·569	·456	·657	·5624
10 „	·650	·486	·575	·459	·667	·5674
11 „	·654	·491	·579	·465	·670	·5718
Noon	·651	·490	·578	·462	·669	·5700
1 p.m.	·649	·490	·579	·463	·670	·5702
2 „	·647	·485	·576	·462	·666	·5672
3 „	·641	·482	·569	·461	·661	·5628
4 „	·641	·481	·568	·462	·660	·5624
5 „	·644	·481	·569	·465	·662	·5642
6 „	·648	·482	·570	·468	·667	·5670
7 „	·652	·485	·572	·473	·671	·5706
8 „	·660	·493	·580	·480	·677	·5780
9 „	·663	·494	·584	·483	·682	·5812
10 „	·662	·494	·584	·479	·684	·5806
11 „	·660	·492	·585	·478	·682	·5794
Midnight	29·660	29·492	29·583	29·474	29·681	29·5780
Mean	29·6472	29·4825	29·5699	29·4602	29·6614	29·5642
1 a.m. after Midnight	29·658	29·486	29·577	29·468	29·675	29·5728

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·924	29·670	29·546	29·824	29·881	29·7690
2 „	·919	·663	·538	·817	·874	·7622
3 „	·916	·656	·534	·812	·867	·7570
4 „	·914	·649	·528	·809	·862	·7524
5 „	·917	·648	·529	·810	·865	·7538
6 „	·924	·651	·535	·815	·872	·7594
7 „	·931	·653	·541	·818	·878	·7642
8 „	·937	·656	·546	·823	·885	·7694
9 „	·940	·655	·550	·824	·885	·7708
10 „	·940	·656	·556	·825	·887	·7728
11 „	·942	·661	·563	·830	·890	·7772
Noon	·941	·659	·565	·827	·887	·7758
1 p.m.	·937	·659	·568	·826	·884	·7748
2 „	·935	·657	·569	·823	·878	·7724
3 „	·929	·651	·569	·819	·872	·7680
4 „	·925	·649	·569	·816	·866	·7650
5 „	·922	·646	·569	·813	·861	·7622
6 „	·920	·644	·569	·813	·861	·7614
7 „	·923	·645	·572	·815	·863	·7636
8 „	·929	·648	·576	·818	·870	·7682
9 „	·937	·655	·581	·825	·877	·7750
10 „	·941	·652	·579	·823	·880	·7750
11 „	·940	·648	·575	·822	·879	·7728
Midnight	29·938	29·645	29·570	29·816	29·875	29·7688
Mean	29·9300	29·6532	29·5582	29·8193	29·8750	29·7671
1 a.m. after Midnight	29·934	29·637	29·561	29·811	29·871	29·7628

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·802	29·767	29·714	29·564	29·741	29·7176
2 „	·794	·760	·706	·553	·732	·7090
3 „	·787	·757	·699	·544	·725	·7024
4 „	·784	·757	·695	·535	·720	·6982
5 „	·784	·759	·696	·534	·721	·6988
6 „	·788	·765	·702	·541	·722	·7036
7 „	·794	·770	·707	·547	·729	·7094
8 „	·799	·778	·713	·554	·730	·7148
9 „	·802	·784	·715	·558	·729	·7176
10 „	·803	·787	·719	·565	·730	·7208
11 „	·807	·793	·721	·570	·734	·7250
Noon	·807	·793	·723	·572	·734	·7258
1 p.m.	·806	·791	·724	·576	·734	·7262
2 „	·806	·794	·724	·577	·731	·7264
3 „	·804	·794	·723	·576	·732	·7258
4 „	·801	·794	·722	·575	·729	·7242
5 „	·797	·793	·719	·575	·728	·7224
6 „	·797	·794	·721	·577	·730	·7238
7 „	·798	·794	·724	·577	·733	·7252
8 „	·800	·797	·727	·578	·737	·7278
9 „	·807	·806	·733	·585	·746	·7354
10 „	·810	·810	·733	·584	·749	·7372
11 „	·808	·805	·730	·577	·745	·7330
Midnight	29·804	29·803	29·723	29·570	29·740	29·7280
Mean	29·7996	29·7852	29·7172	29·5652	29·7325	29·7199
1 a.m. after Midnight	29·796	29·797	29·714	29·559	29·733	29·7198

FALMOUTH.

JULY.

—	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·905	29·763	29·846	29·654	29·710	29·7756
2 „	·900	·756	·840	·645	·700	·7682
3 „	·894	·749	·835	·634	·694	·7612
4 „	·893	·747	·834	·627	·689	·7580
5 „	·893	·749	·837	·628	·691	·7596
6 „	·896	·755	·844	·632	·695	·7644
7 „	·902	·759	·853	·637	·702	·7706
8 „	·909	·764	·861	644	·708	·7772
9 „	·911	·765	·865	·648	·710	·7798
10 „	·913	·766	·867	·655	·713	·7828
11 „	·914	·769	·872	·662	·716	·7866
Noon	·913	·768	·870	·663	716	·7860
1 p.m.	·911	·764	·871	·664	·718	·7856
2 „	·910	·763	·866	·665	·716	·7840
3 „	·907	·761	·861	·664	·717	·7820
4 „	·906	·758	·857	·662	·716	·7798
5 „	·903	·755	·854	·662	·714	·7776
6 „	·902	·755	·852	·662	·714	·7770
7 „	·904	·756	·855	·664	·715	·7788
8 „	·906	·758	·859	·668	·717	·7816
9 „	·913	·764	·865	·676	·724	·7884
10 „	·914	·768	·865	·675	·726	·7896
11 „	·913	·764	·864	·672	·720	·7866
Midnight	29 911	29·760	29·861	29·669	29·715	29·7832
Mean	29·9060	29·7598	29·8564	29·6555	29·7107	29·7777
1 a.m. after Midnight	29·904	29·756	29·857	29·661	29·706	29·7768

AUGUST.

—	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·761	29·656	29·538	29·626	29·781	29·6724
2 „	·753	·650	·531	·619	·775	·6656
3 „	·746	·647	·526	·612	·768	·6598
4 „	·743	·644	·520	·605	·765	·6554
5 „	·743	·643	·520	·605	·766	·6554
6 „	·749	·651	·524	·612	·773	·6618
7 „	·758	·656	·529	·622	·778	·6686
8 „	·764	·663	·535	·630	·786	·6756
9 „	·768	·667	·538	·631	·787	·6782
10 „	·773	·672	·542	·635	·787	·6818
11 „	·775	·673	·548	·638	·789	·6846
Noon	·777	·677	·549	·639	·787	·6858
1 p.m.	·774	·679	·549	·640	·787	·6858
2 „	·772	·681	·548	·641	·785	·6854
3 „	·765	·678	·543	·638	·781	·6810
4 „	·762	·678	·541	·634	·781	·6792
5 „	·757	·674	·536	637	·781	·6770
6 „	·757	·672	·533	·639	·783	·6768
7 „	·758	·669	·533	·644	·787	·6782
8 „	·764	·675	·537	·652	·798	·6852
9 „	·766	·677	·537	·655	·803	·6876
10 „	·766	·678	·535	·656	·806	·6882
11 „	·761	·674	·535	·654	804	·6856
Midnight	29·758	29 671	29·533	29 652	29·803	29·6834
Mean	29·7612	29·6669	29·5358	29·6340	29·7850	29·6766
1 a.m. after Midnight	29·751	29·663	29·530	29·644	29·798	29·6772

SEPTEMBER.

—	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·608	29·847	29·819	29·765	29·775	29·7628
2 „	·598	·842	·812	·760	·772	·7568
3 „	·587	·838	·806	·755	·765	·7502
4 „	·581	·838	·803	·750	·760	·7464
5 „	·582	·835	·803	·745	·757	·7444
6 „	·588	·843	·810	·753	·761	·7510
7 „	·595	·850	·817	·760	·768	·7580
8 „	·602	·859	·822	·768	·778	·7658
9 „	·606	·865	·829	·772	·780	·7704
10 „	·612	·867	·834	·779	·784	·7752
11 „	·614	·867	·835	·777	·787	·7760
Noon	·614	·866	·835	·775	·781	·7742
1 p.m.	·612	·861	·829	·771	·779	·7704
2 „	·607	·854	·824	·765	·774	·7648
3 „	·605	·847	·818	·760	·772	·7604
4 „	·604	·844	·816	·757	·772	·7586
5 „	·606	·843	·816	·756	·772	·7586
6 „	·609	·843	·816	·758	·777	·7606
7 „	·613	·844	·821	·760	·780	·7636
8 „	·620	·854	·828	·763	·786	·7702
9 „	·622	·854	·829	·762	·784	·7702
10 „	·620	·856	·827	·762	·787	·7704
11 „	·616	·853	·822	·758	·785	·7668
Midnight	29·608	29·851	29·819	29·752	29·783	29·7626
Mean	29·6054	29·8509	29·8204	29·7618	29·7758	29·7629
1 a.m. after Midnight	29·559	29·847	29·816	29·744	29·779	29·7570

FALMOUTH.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·642	29·811	29·558	29·910	29·647	29·7136
2 „	·639	·807	·551	·902	·643	·7084
3 „	·633	·802	·544	·893	·633	·7010
4 „	·631	·800	·541	·890	·628	·6980
5 „	·632	·800	·539	·890	·628	·6978
6 „	·637	·806	·540	·892	·628	·7006
7 „	·645	·811	·547	·896	·636	·7070
8 „	·656	·820	·556	·908	·647	·7174
9 „	·662	·823	·563	·913	·652	·7226
10 „	·668	·825	·570	·919	·656	·7276
11 „	·672	·826	·577	·922	·659	·7312
Noon	·670	·821	·575	·917	·653	·7272
1 p.m.	·665	·813	·569	·909	·647	·7206
2 „	·661	·812	·562	·903	·641	·7158
3 „	·660	·810	·560	·900	·636	·7132
4 „	·660	·811	·561	·900	·635	·7134
5 „	·663	·812	·564	·904	·636	·7158
6 „	·668	·818	·567	·913	·642	·7216
7 „	·672	·821	·568	·921	·644	·7252
8 „	·673	·821	·572	·923	·648	·7274
9 „	·676	·820	·574	·927	·651	·7296
10 „	·676	·823	·573	·930	·654	·7312
11 „	·674	·821	·567	·927	·651	·7280
Midnight	29·674	29·821	29·564	29·926	29·649	29·7268
Mean	29·6587	29·8148	29·5609	29·9098	29·6435	29 7175
1 a.m. after Midnight	29·672	29·820	29·560	29·922	29·646	29·7240

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·631	29·494	29·622	30·033	29·753	29·7066
2 „	·627	·492	·620	·030	·748	·7034
3 „	·618	·491	·616	·025	·744	·6988
4 „	·612	·489	·609	·020	·740	·6940
5 „	·608	·491	·607	·021	·739	·6932
6 „	·606	·493	·606	·021	·740	·6932
7 „	·610	·495	·605	·024	·745	·6958
8 „	·617	·504	·614	·031	·757	·7046
9 „	·622	·506	·617	·040	·764	·7098
10 „	·624	·506	·619	·044	·767	·7120
11 „	·626	·507	·620	·047	·769	·7138
Noon	·615	·490	·611	·036	·755	·7014
1 p.m.	·609	·477	·606	·027	·751	·6940
2 „	·603	·466	·601	·016	·746	·6864
3 „	·600	·460	·602	·014	·745	·6842
4 „	·600	·455	·605	·014	·750	·6848
5 „	·603	·452	·611	·015	·758	·6878
6 „	·607	·449	·617	·021	·765	·6918
7 „	·607	·453	·618	·024	·763	·6930
8 „	·608	·455	·619	·023	·769	·6948
9 „	·609	·456	·623	·027	·770	·6970
10 „	·609	·457	·626	·030	·769	·6982
11 „	·607	·453	·626	·032	·764	·6964
Midnight	29·606	29·452	29·624	30·033	29·759	29·6948
Mean	29·6118	29·4768	29·6143	30·0270	29·7554	29 6971
1 a.m. after Midnight	29·596	29·448	29·620	30·027	29·753	29·6888

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·192	29·844	29·528	30·081	29·763	29·6816
2 „	·191	·848	·528	·077	·758	·6804
3 „	·187	·849	·527	·076	·756	·6790
4 „	·182	·848	·525	·069	·751	·6750
5 „	·179	·844	·519	·066	·747	·6710
6 „	·180	·847	·518	·067	·749	·6722
7 „	·183	·854	·521	·069	·754	·6762
8 „	·189	·866	·531	·075	·761	·6844
9 „	·197	·876	·539	·080	·767	·6918
10 „	·207	·886	·545	·089	·777	·7008
11 „	·212	·890	·546	·091	·781	·7040
Noon	·202	·878	·532	·081	·770	·6926
1 p.m.	·190	·867	·520	·071	·762	·6820
2 „	·185	·862	·512	·062	·757	·6756
3 „	·184	·866	·512	·060	·760	·6764
4 „	·186	·870	·515	·061	·765	·6794
5 „	·188	·873	·516	·068	·768	·6826
6 „	·193	·879	·517	·073	·774	·6872
7 „	·195	·884	·521	·076	·778	·6908
8 „	·195	·891	·526	·080	·781	·6946
9 „	·197	·892	·531	·082	·782	·6968
10 „	·199	·891	·533	·085	·784	·6984
11 „	·194	·889	·531	·087	·781	·6964
Midnight	29·189	29·889	29·528	30·086	29·779	29·6942
Mean	29·1915	29·8701	29·5259	30·0755	29·7642	29·6860
1 a.m. after Midnight	29·180	29·886	29·525	30·083	29·769	29·6886

FALMOUTH.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·6840	29·6970	29·7283	29·7244	29·7686	29·7204
2 „	·6786	·6926	·7228	·7185	·7627	·7149
3 „	6720	·6880	·7181	·7128	·7566	·7094
4 „	·6675	·6845	·7138	·7076	·7514	·7049
5 „	·6666	·6831	·7128	·7071	·7512	·7041
6 „	·6694	·6873	·7158	·7107	·7544	·7074
7 „	·6747	·6914	·7211	·7155	·7598	·7124
8 „	·6814	·6988	·7285	·7226	·7678	·7202
9 „	·6864	·7033	·7336	·7271	·7713	·7243
10 „	·6911	·7068	·7385	·7324	·7756	·7288
11 „	·6949	·7106	·7426	·7371	·7793	·7328
Noon	·6919	·7065	·7395	·7331	·7747	·7290
1 p.m.	·6870	·7016	·7351	·7288	·7714	·7247
2 „	·6828	·6978	·7300	·7237	·7656	·7199
3 „	·6797	·6953	·7268	·7211	·7631	·7171
4 „	·6788	·6950	·7261	·7201	·7626	·7164
5 „	·6791	·6951	·7266	·7219	·7635	·7171
6 „	·6824	·6973	·7284	·7256	·7695	·7202
7 „	·6854	·6998	·7311	·7289	·7708	·7231
8 „	·6890	·7044	·7347	·7317	·7758	·7270
9 „	·6923	·7073	·7373	·7346	·7792	·7301
10 „	·6938	·7087	·7371	·7344	·7813	·7309
11 „	·6910	·7063	·7348	·7330	·7783	·7286
Midnight	29·6880	29·7052	29·7314	29·7307	29·7753	29·7260
Mean	29·6828	29·6985	29·7290	29·7243	29·7679	29·7204
1 a.m. after Midnight	29·6809	29·7008	29·7268	29·7246	29·7698	29·7206

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	+ ·0008	+ ·0017	+ ·0039	+ ·0021	− ·0011	− ·0012	− ·0014	− ·0018	− ·0027	+ ·0010	+ ·0010	− ·0010	+ ·0001
2 „	− ·0009	− ·0026	− ·0028	− ·0056	− ·0077	− ·0099	− ·0088	− ·0088	− ·0085	− ·0047	− ·0014	− ·0025	− ·0054
3 „	− ·0032	− ·0080	− ·0111	− ·0115	− ·0126	− ·0166	− ·0159	− ·0148	− ·0148	− ·0125	− ·0053	− ·0042	− ·0109
4 „	− ·0095	− ·0138	− ·0164	− ·0168	− ·0169	− ·0209	− ·0191	− ·0194	− ·0184	− ·0159	− ·0094	− ·0085	− ·0154
5 „	− ·0146	− ·0139	− ·0167	− ·0181	− ·0153	− ·0204	− ·0176	− ·0196	− ·0201	− ·0166	− ·0094	− ·0128	− ·0162
6 „	− ·0158	− ·0131	− ·0143	− ·0126	− ·0094	− ·0157	− ·0128	− ·0134	− ·0133	− ·0142	− ·0087	− ·0119	− ·0129
7 „	− ·0113	− ·0113	− ·0092	− ·0075	− ·0044	− ·0100	− ·0067	− ·0068	− ·0060	− ·0082	− ·0053	− ·0082	− ·0080
8 „	− ·0034	− ·0024	− ·0021	− ·0034	+ ·0011	− ·0046	− ·0001	± ·0000	+ ·0020	+ ·0017	+ ·0042	− ·0002	− ·0002
9 „	+ ·0045	+ ·0036	+ ·0032	− ·0002	+ ·0028	− ·0019	+ ·0024	+ ·0024	+ ·0068	+ ·0065	+ ·0101	+ ·0069	+ ·0039
10 „	+ ·0114	+ ·0082	+ ·0079	+ ·0043	+ ·0050	+ ·0012	+ ·0054	+ ·0058	+ ·0119	+ ·0111	+ ·0131	+ ·0156	+ ·0084
11 „	+ ·0176	+ ·0158	+ ·0135	+ ·0082	+ ·0097	+ ·0053	+ ·0091	+ ·0084	+ ·0129	+ ·0143	+ ·0156	+ ·0185	+ ·0124
Noon	+ ·0085	+ ·0131	+ ·0122	+ ·0059	+ ·0085	+ ·0060	+ ·0085	+ ·0094	+ ·0114	+ ·0098	+ ·0040	+ ·0068	+ ·0086
1 p.m.	− ·0024	+ ·0057	+ ·0077	+ ·0056	+ ·0078	+ ·0063	+ ·0080	+ ·0092	+ ·0078	+ ·0028	− ·0027	− ·0041	+ ·0043
2 „	− ·0101	− ·0039	− ·0010	+ ·0021	+ ·0057	+ ·0064	+ ·0063	+ ·0086	+ ·0024	− ·0024	− ·0096	− ·0108	− ·0005
3 „	− ·0096	− ·0088	− ·0059	− ·0028	+ ·0015	+ ·0057	+ ·0043	+ ·0040	− ·0017	− ·0055	− ·0110	− ·0103	− ·0033
4 „	− ·0072	− ·0086	− ·0089	− ·0037	− ·0012	+ ·0040	+ ·0020	+ ·0020	− ·0033	− ·0057	− ·0097	− ·0076	− ·0040
5 „	− ·0039	− ·0052	− ·0082	− ·0024	− ·0038	+ ·0021	− ·0002	− ·0004	− ·0030	− ·0037	− ·0059	− ·0047	− ·0033
6 „	+ ·0014	+ ·0016	− ·0025	− ·0002	− ·0043	+ ·0034	− ·0009	− ·0008	− ·0008	+ ·0017	− ·0012	− ·0004	− ·0002
7 „	+ ·0049	+ ·0067	+ ·0022	+ ·0029	− ·0018	+ ·0048	+ ·0009	+ ·0004	+ ·0024	+ ·0048	+ ·0007	+ ·0030	+ ·0027
8 „	+ ·0080	+ ·0069	+ ·0073	+ ·0098	+ ·0030	+ ·0073	+ ·0036	+ ·0072	+ ·0093	+ ·0066	+ ·0033	+ ·0065	+ ·0065
9 „	+ ·0088	+ ·0079	+ ·0091	+ ·0125	+ ·0101	+ ·0148	+ ·0104	+ ·0094	+ ·0095	+ ·0084	+ ·0062	+ ·0084	+ ·0096
10 „	+ ·0097	+ ·0074	+ ·0114	+ ·0114	+ ·0103	+ ·0165	+ ·0115	+ ·0098	+ ·0100	+ ·0095	+ ·0082	+ ·0097	+ ·0104
11 „	+ ·0086	+ ·0062	+ ·0097	+ ·0097	+ ·0084	+ ·0122	+ ·0085	+ ·0070	+ ·0066	+ ·0059	+ ·0071	+ ·0074	+ ·0081
Midnight	+ ·0061	+ ·0056	+ ·0076	+ ·0078	+ ·0047	+ ·0071	+ ·0050	+ ·0046	+ ·0027	+ ·0043	+ ·0062	+ ·0049	+ ·0055
1 a.m.	+ ·0008	+ ·0017	+ ·0039	+ ·0021	− ·0011	− ·0012	− ·0014	− ·0018	− ·0027	+ ·0010	+ ·0010	− ·0010	+ ·0001
Mean†	29·8938	29·6727	29·7091	29·5646	29·7670	29·7199	29·7776	29·6766	29·7626	29·7178	29·6967	29·6861	29·7204

* A correction for non-periodicity has been applied to all the values in this table.

† Of twenty-five hours.

STONYHURST.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·818	29·329	29·680	29·625	29·917	29·6738
2 „	·821	·327	·681	·627	·915	·6742
3 „	·820	·327	·682	·626	·913	·6736
4 „	·819	·321	·678	·623	·912	·6706
5 „	·817	·314	·676	·622	·910	·6678
6 „	·819	·309	·678	·621	·913	·6680
7 „	·824	·305	·684	·627	·917	·6714
8 „	·838	·311	·698	·637	·925	·6818
9 „	·844	·318	·704	·645	·934	·6890
10 „	·852	·330	·712	·653	·943	·6980
11 „	·852	·334	·715	·656	·944	·7002
Noon	·839	·326	·709	·653	·938	·6930
1 p.m.	·826	·320	·697	·646	·929	·6836
2 „	·823	·318	·694	·643	·922	·6800
3 „	·821	·319	·691	·643	·918	·6784
4 „	·824	·325	·694	·646	·919	·6816
5 „	·826	·331	·691	·652	·921	·6842
6 „	·831	·338	·693	·655	·926	·6886
7 „	·834	·346	·696	·656	·930	·6924
8 „	·839	·354	·698	·659	·934	·6968
9 „	·837	·357	·697	·659	·938	·6976
10 „	·837	·357	·697	·658	·939	·6976
11 „	·832	·359	·697	·660	·941	·6978
Midnight	29·832	29·358	29·696	29·657	29·944	29·6974
Mean	29·8302	29·3305	29·6933	29·6437	29·9268	29·6849
1 a.m. after Midnight	29·826	29·355	29·692	29·649	29·940	29·6924

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·343	29·436	29·836	29·130	29·297	29·4084
2 „	·340	·427	·832	·125	·295	·4038
3 „	·333	·420	·825	·115	·291	·3968
4 „	·329	·414	·822	·110	·289	·3928
5 „	·326	·416	·820	·105	·289	·3912
6 „	·322	·419	·820	·105	·292	·3916
7 „	·320	·426	·821	·104	·297	·3936
8 „	·325	·438	·826	·112	·304	·4010
9 „	·325	·445	·828	·112	·307	·4034
10 „	·332	·451	·829	·115	·312	·4078
11 „	·335	·455	·829	·116	·309	·4088
Noon	·334	·457	·821	·109	·305	·4052
1 p.m.	·325	·452	·806	·100	·297	·3960
2 „	·319	·446	·794	·097	·290	·3892
3 „	·316	·442	·785	·098	·284	·3850
4 „	·316	·442	·784	·103	·280	·3850
5 „	·318	·445	·787	·108	·280	·3876
6 „	·325	·454	·795	·118	·285	·3954
7 „	·326	·457	·799	·122	·281	·3970
8 „	·329	·459	·802	·125	·278	·3986
9 „	·329	·461	·804	·127	·275	·3992
10 „	·331	·460	·806	·128	·272	·3994
11 „	·330	·458	·807	·127	·267	·3978
Midnight	29·332	29·460	29·809	29·127	29·266	29·3988
Mean	29·3275	29·4433	29·8120	29·1141	29·2893	29·3972
1 a.m. after Midnight	29·327	29·456	29·805	29·120	29·262	29·3940

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·104	29·339	29·663	29·560	29·687	29·4706
2 „	·097	·335	·661	·557	·685	·4670
3 „	·085	·328	·655	·548	·678	·4588
4 „	·082	·322	·652	·543	·677	·4552
5 „	·081	·320	·654	·545	·676	·4552
6 „	·085	·320	·656	·553	·680	·4588
7 „	·090	·323	·660	·555	·686	·4628
8 „	·097	·325	·664	·562	·690	·4676
9 „	·099	·326	·662	·563	·693	·4686
10 „	·103	·329	·662	·565	·696	·4710
11 „	·105	·329	·661	·564	·696	·4710
Noon	·104	·327	·657	·560	·694	·4684
1 p.m.	·099	·321	·648	·550	·685	·4606
2 „	·096	·314	·640	·545	·676	·4542
3 „	·090	·309	·633	·538	·669	·4478
4 „	·089	·307	·629	·537	·662	·4448
5 „	·093	·309	·628	·539	·661	·4460
6 „	·103	·316	·634	·546	·670	·4538
7 „	·108	·322	·636	·551	·676	·4586
8 „	·112	·329	·638	·556	·684	·4638
9 „	·113	·330	·639	·557	·688	·4654
10 „	·116	·330	·641	·558	·687	·4664
11 „	·111	·328	·640	·555	·688	·4644
Midnight	29·110	29·327	29·645	29·553	29·688	29·4646
Mean	29·0988	29·3235	29·6483	29·5525	29·6822	29·4611
1 a.m. after Midnight	29·104	29·328	29·644	29·550	29·689	29·4630

STONYHURST.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·435	29·376	29·443	29·308	29·443	29·4010
2 „	·436	·373	·439	·303	·439	·3980
3 „	·427	·370	·433	·299	·437	·3932
4 „	·424	·369	·430	·297	·437	·3914
5 „	·423	·370	·431	·297	·439	·3920
6 „	·430	·376	·440	·305	·443	·3988
7 „	·435	·381	·444	·309	·447	·4032
8 „	·439	·386	·446	·311	·448	·4060
9 „	·438	·389	·445	·313	·449	·4068
10 „	·443	·390	·447	·312	·451	·4086
11 „	·441	·389	·444	·306	·450	·4060
Noon	·439	·383	·442	·304	·448	·4032
1 p.m.	·435	·379	·437	·303	·446	·4000
2 „	·433	·372	·434	·300	·445	·3968
3 „	·427	·364	·426	·294	·440	·3902
4 „	·426	·361	·424	·294	·442	·3894
5 „	·424	·359	·425	·296	·445	·3898
6 „	·432	·363	·430	·305	·451	·3962
7 „	·437	·369	·437	·315	·461	·4038
8 „	·450	·380	·450	·328	·473	·4162
9 „	·452	·385	·454	·332	·478	·4202
10 „	·454	·388	·456	·334	·482	·4228
11 „	·453	·389	·459	·335	·482	·4236
Midnight	29·451	29·390	29·461	29·334	29·481	29·4234
Mean	29·4368	29·3771	29·4407	29·3098	29·4524	29·4034
1 a.m. after Midnight	29·445	29·388	29·458	29·328	29·477	29·4192

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·771	29·491	29·352	29·623	29·719	29·5912
2 „	·770	·487	·349	·617	·714	·5874
3 „	·768	·481	·343	·611	·709	·5824
4 „	·767	·477	·339	·607	·706	·5792
5 „	·769	·478	·336	·609	·706	·5796
6 „	·773	·481	·339	·614	·708	·5830
7 „	·775	·483	·341	·615	·711	·5850
8 „	·779	·482	·343	·616	·713	·5866
9 „	·778	·479	·340	·615	·713	·5850
10 „	·777	·476	·340	·613	·711	·5834
11 „	·774	·474	·338	·610	·708	·5808
Noon	·772	·471	·338	·608	·707	·5792
1 p.m.	·767	·467	·336	·602	·701	·5746
2 „	·762	·464	·336	·602	·698	·5724
3 „	·756	·460	·331	·599	·694	·5680
4 „	·754	·458	·333	·596	·692	·5666
5 „	·752	·454	·334	·593	·692	·5650
6 „	·756	·457	·339	·597	·695	·5688
7 „	·761	·459	·345	·600	·703	·5736
8 „	·771	·465	·356	·607	·713	·5824
9 „	·779	·473	·365	·612	·723	·5904
10 „	·785	·472	·368	·614	·726	·5930
11 „	·784	·470	·369	·611	·725	·5918
Midnight	29·784	29·469	29·369	29·606	29·721	29·5898
Mean	29·7702	29·4720	29·3450	29·6082	29·7087	29·5808
1 a.m. after Midnight	29·780	29·462	29·366	29·602	29·717	29·5854

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·585	29·571	29·534	29·340	29·538	29·5136
2 „	·580	·566	·530	·335	·533	·5088
3 „	·576	·563	·526	·333	·527	·5050
4 „	·576	·566	·527	·332	·524	·5050
5 „	·577	·565	·525	·336	·524	·5054
6 „	·580	·570	·529	·340	·526	·5090
7 „	·582	·575	·532	·342	·525	·5112
8 „	·583	·580	·535	·345	·528	·5142
9 „	·583	·582	·531	·344	·527	·5134
10 „	·584	·581	·531	·345	·527	·5136
11 „	·584	·580	·529	·345	·526	·5128
Noon	·583	·581	·524	·344	·524	·5112
1 p.m.	·578	·576	·520	·342	·519	·5070
2 „	·576	·575	·516	·338	·518	·5046
3 „	·571	·570	·511	·336	·514	·5004
4 „	·569	·567	·505	·334	·511	·4972
5 „	·565	·564	·504	·335	·507	·4950
6 „	·567	·567	·508	·336	·508	·4972
7 „	·569	·573	·511	·339	·512	·5008
8 „	·575	·579	·519	·345	·519	·5074
9 „	·582	·589	·528	·352	·527	·5156
10 „	·586	·594	·536	·354	·530	·5200
11 „	·584	·595	·536	·354	·528	·5194
Midnight	29·580	29·594	29·537	29·351	29·524	29·5172
Mean	29·5781	29·5760	29·5243	29·3415	29·5228	29·5085
1 a.m. after Midnight	29·574	29·592	29·533	29·347	29·518	29·5128

STONYHURST.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·648	29·455	29·642	29·346	29·459	29·5100
2 „	·644	·449	·638	·341	·455	·5054
3 „	·639	·443	·633	·332	·446	·4986
4 „	·636	·441	·632	·332	·445	·4972
5 „	·638	·441	·634	·334	·445	·4984
6 „	·641	·445	·640	·336	·450	·5024
7 „	·643	·448	·645	·337	·454	·5054
8 „	·646	·452	·649	·341	·458	·5092
9 „	·643	·453	·647	·341	·458	·5084
10 „	·646	·455	·648	·344	·459	·5104
11 „	·649	·456	·646	·346	·459	·5112
Noon	·649	·455	·647	·347	·459	·5114
1 p.m.	·646	·454	·643	·349	·456	·5096
2 „	·645	·456	·642	·349	·456	·5096
3 „	·642	·453	·638	·348	·453	·5068
4 „	·639	·450	·635	·345	·452	·5042
5 „	·637	·449	·630	·344	·449	·5018
6 „	·640	·448	·634	·346	·450	·5036
7 „	·642	·448	·638	·348	·453	·5058
8 „	·646	·450	·646	·352	·460	·5108
9 „	·650	·456	·654	·357	·468	·5170
10 „	·653	·459	·657	·359	·469	·5194
11 „	·650	·455	·658	·355	·468	·5172
Midnight	29·648	29·452	29·658	29·352	29·466	29·5152
Mean	29·6442	29·4510	29·6431	29·3450	29·4561	29·5079
1 a.m. after Midnight	29·643	29·447	29·655	29·346	29·460	29·5102

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·527	29·430	29·358	29·364	29·642	29·4642
2 „	·521	·426	·353	·358	·638	·4592
3 „	·513	·419	·346	·353	·633	·4528
4 „	·510	·415	·343	·347	·630	·4490
5 „	·506	·413	·341	·346	·633	·4478
6 „	·508	·417	·342	·349	·639	·4510
7 „	·507	·419	·345	·353	·643	·4534
8 „	·510	·423	·350	·362	·648	·4586
9 „	·509	·425	·351	·366	·649	·4600
10 „	·511	·427	·353	·367	·649	·4614
11 „	·515	·426	·351	·368	·646	·4612
Noon	·514	·428	·351	·370	·642	·4610
1 p.m.	·512	·426	·348	·368	·636	·4580
2 „	·509	·427	·344	·369	·633	·4564
3 „	·507	·424	·338	·367	·628	·4528
4 „	·505	·424	·337	·367	·626	·4518
5 „	·500	·422	·333	·364	·624	·4486
6 „	·504	·424	·335	·367	·629	·4518
7 „	·506	·428	·340	·370	·635	·4558
8 „	·516	·440	·349	·379	·649	·4666
9 „	·520	·443	·353	·382	·655	·4706
10 „	·525	·445	·352	·386	·661	·4738
11 „	·524	·440	·349	·386	·660	·4718
Midnight	29·523	29·439	29·347	29·387	29·660	29·4712
Mean	29·5126	29·4271	29·3462	29·3665	29·6412	29·4587
1 a.m. after Midnight	29·517	29·433	29·340	29·383	29·656	29·4658

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m	29·362	29·658	29·529	29·513	29·543	29·5210
2 „	·357	·655	·523	·507	·538	·5160
3 „	·352	·649	·513	·503	·532	·5098
4 „	·348	·648	·509	·500	·530	·5070
5 „	·348	·649	·509	·499	·531	·5072
6 „	·352	·657	·515	·509	·539	·5144
7 „	·358	·664	·518	·516	·546	·5204
8 „	·363	·672	·523	·520	·551	·5258
9 „	·365	·675	·527	·524	·554	·5290
10 „	·370	·679	·532	·526	·556	·5326
11 „	·370	·674	·532	·524	·556	·5312
Noon	·372	·673	·533	·523	·555	·5312
1 p.m.	·371	·667	·528	·518	·552	·5272
2 „	·370	·663	·526	·513	·550	·5244
3 „	·367	·657	·522	·504	·547	·5194
4 „	·365	·658	·523	·501	·544	·5182
5 „	·369	·656	·526	·502	·545	·5196
6 „	·372	·660	·532	·507	·553	·5248
7 „	·375	·667	·539	·511	·561	·5306
8 „	·379	675	·546	·517	·567	·5368
9 „	·379	·674	·546	·515	·566	·5360
10 „	·378	·674	·546	·513	·565	·5352
11 „	·374	·672	·542	·509	·561	·5316
Midnight	29·370	29·672	29·538	29·503	29·557	29·5280
Mean	29·3661	29·6645	29·5282	29·5115	29·5500	29·5241
1 a.m. after Midnight	29·368	29·666	29·532	29·498	29·549	29·5226

STONYHURST.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·498	29·524	29·318	29·713	29·536	29·5178
2 „	·498	·520	·313	·706	·532	·5138
3 „	·494	·512	·306	·699	·528	·5078
4 „	·490	·512	·304	·696	·527	·5058
5 „	·492	·512	·299	·694	·527	·5048
6 „	·493	·517	·301	·696	·528	·5070
7 „	·498	·525	·306	·701	·534	·5128
8 „	·504	·538	·310	·708	·541	·5202
9 „	·507	·543	·311	·710	·542	·5226
10 „	·507	·545	·311	·713	·543	·5238
11 „	·505	·543	·308	·713	·542	·5222
Noon	·502	·537	·306	·709	·536	·5180
1 p.m.	·499	·528	·300	·700	·529	·5112
2 „	·498	·522	·297	·699	·523	·5078
3 „	·495	·516	·295	·696	·518	·5040
4 „	·499	·515	·295	·699	·516	·5048
5 „	·503	·517	·301	·705	·520	·5092
6 „	·512	·523	·309	·716	·525	·5170
7 „	·517	·524	·313	·721	·528	·5206
8 „	·523	·522	·319	·725	·530	·5238
9 „	·526	·522	·320	·730	·532	·5260
10 „	·528	·524	·321	·732	·534	·5278
11 „	·525	·526	·320	·729	·532	·5264
Midnight	29·523	29·529	29·321	29·728	29·531	29·5264
Mean	29·5057	29·5248	29·3085	29·7099	29·5306	29·5159
1 a.m. after Midnight	29·522	29·525	29·319	29·723	29·527	29·5232

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·465	29·147	29·382	29·839	29·489	29·4644
2 „	·466	·146	·379	·838	·484	·4626
3 „	·462	·143	·375	·831	·475	·4572
4 „	·459	·144	·374	·826	·470	·4546
5 „	·460	·147	·375	·825	·469	·4552
6 „	·459	·153	·375	·823	·467	·4554
7 „	·460	·157	·383	·825	·471	·4592
8 „	·465	·168	·391	·833	·479	·4672
9 „	·468	·174	·395	·834	·481	·4704
10 „	·472	·180	·400	·837	·484	·4746
11 „	·468	·177	·396	·835	·483	·4718
Noon	·462	·168	·391	·831	·475	·4654
1 p.m.	·453	·154	·384	·822	·469	·4564
2 „	·444	·145	·379	·819	·466	·4506
3 „	·442	·135	·378	·818	·466	·4478
4 „	·442	·130	·386	·823	·474	·4510
5 „	·446	·129	·389	·825	·480	·4538
6 „	·447	·125	·394	·830	·489	·4570
7 „	·446	·120	·395	·834	·495	·4580
8 „	·445	·120	·396	·835	·507	4606
9 „	·445	·115	·393	·837	·503	·4586
10 „	·445	·114	·390	·839	·506	·4588
11 „	·442	·109	·387	·836	·506	·4560
Midnight	29·440	29·106	29·385	29·835	29·503	29·4538
Mean	29·4543	29·1419	29·3863	29·8304	29·4830	29·4592
1 a.m. after Midnight	29·437	29·105	29·377	29·828	29·493	29·4480

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years
1 a.m.	29·026	29·532	29·298	29·862	29·436	29·4308
2 „	·026	·538	·294	·863	·436	·4314
3 „	·024	·538	·289	860	·432	·4286
4 „	·020	·535	·283	·857	·430	·4250
5 „	·016	·529	·277	·854	·430	·4212
6 „	·019	·530	·278	·855	·432	·4228
7 „	·014	·535	·284	·854	·434	·4242
8 „	·019	·547	·296	·855	·444	·4322
9 „	·022	·554	·302	·857	·449	·4368
10 „	·027	·565	·306	·865	·460	·4446
11 „	·027	·564	·303	·858	·459	·4422
Noon	·018	·558	·297	·849	·453	·4350
1 p.m.	·010	·556	·290	·838	·443	·4274
2 „	·003	·555	·289	·833	·436	·4232
3 „	·003	·559	·286	·829	·436	·4226
4 „	·005	·563	·289	·831	·444	·4264
5 „	·007	·564	·287	·833	·444	·4270
6 „	·009	·567	·290	·835	·448	·4298
7 „	·012	·569	·295	·838	·449	·4326
8 „	·014	·572	·299	·842	·449	·4352
9 „	·017	·575	·298	·847	·448	·4370
10 „	·019	·576	·296	·851	·449	·4382
11 „	·020	·577	·295	·852	·449	·4386
Midnight	29·019	29·576	29·291	29·853	29·449	29·4376
Mean	29·0165	29·5556	29·2922	29·8488	29·4433	29·4313
1 a.m. after Midnight	29·011	29·575	29·286	29·852	29·440	29·4328

STONYHURST.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·4660	29·4407	29·5029	29·5186	29·5588	29·4972
2 „	·4637	·4374	·4993	·5148	·5553	·4940
3 „	·4586	·4328	·4938	·5092	·5501	·4887
4 „	·4558	·4303	·4911	·5058	·5481	·4861
5 „	·4550	·4295	·4898	·5055	·5483	·4855
6 „	·4575	·4328	·4928	·5088	·5514	·4885
7 „	·4595	·4368	·4969	·5115	·5554	·4919
8 „	·4648	·4435	·5026	·5168	·5608	·4975
9 „	·4660	·4469	·5036	·5187	·5630	·4995
10 „	·4693	·4507	·5059	·5213	·5659	·5025
11 „	·4696	·4501	·5043	·5201	·5648	·5016
Noon	·4663	·4470	·5013	·5173	·5613	·4985
1 p.m.	·4608	·4417	·4948	·5115	·5552	·4926
2 „	·4573	·4381	·4909	·5089	·5511	·4891
3 „	·4539	·4340	·4862	·5058	·5473	·4853
4 „	·4537	·4333	·4862	·5063	·5468	·4851
5 „	·4540	·4333	·4863	·5080	·5473	·4856
6 „	·4590	·4368	·4911	·5132	·5524	·4903
7 „	·4619	·4402	·4953	·5171	·5570	·4941
8 „	·4673	·4454	·5015	·5225	·5636	·4999
9 „	·4699	·4483	·5043	·5256	·5668	·5028
10 „	·4720	·4494	·5055	·5272	·5683	·5044
11 „	·4701	·4482	·5049	·5258	·5673	·5030
Midnight	29·4684	29·4477	29·5048	29·5238	29·5658	29·5020
Mean	29·4625	29·4406	29·4973	29·5152	29·5572	29·4944
1 a.m. after Midnight	29·4628	29·4443	29·5006	29·5188	29·5607	29·4975

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	−·0021	+·0041	+·0057	+·0061	+·0073	+·0045	+·0021	+·0060	−·0022	+·0043	−·0025	+·0005	+·0029
2 „	−·0024	+·0001	+·0024	+·0024	+·0038	−·0002	−·0025	+·0009	−·0073	+·0001	−·0036	+·0010	−·0004
3 „	−·0038	−·0063	−·0055	−·0032	−·0010	−·0040	−·0093	−·0055	−·0135	−·0061	−·0083	−·0019	−·0057
4 „	−·0076	−·0097	−·0088	−·0058	−·0040	−·0040	−·0107	−·0094	−·0164	−·0084	−·0102	−·0056	−·0083
5 „	−·0112	−·0107	−·0085	−·0059	−·0033	−·0035	−·0095	−·0107	−·0163	−·0096	−·0089	−·0094	−·0089
6 „	−·0118	−·0097	−·0045	+·0001	+·0003	+·0001	−·0055	−·0075	−·0091	−·0076	−·0081	−·0079	−·0059
7 „	−·0091	−·0071	−·0002	+·0038	+·0026	+·0023	−·0026	−·0052	−·0032	−·0020	−·0036	−·0066	−·0025
8 „	+·0005	+·0009	+·0049	+·0058	+·0044	+·0053	+·0012	−·0001	+·0021	+·0051	+·0051	+·0013	+·0031
9 „	+·0069	+·0039	+·0062	+·0058	+·0030	+·0046	+·0004	+·0013	+·0053	+·0073	+·0090	+·0058	+·0051
10 „	+·0151	+·0089	+·0089	+·0069	+·0017	+·0048	+·0024	+·0026	+·0088	+·0083	+·0139	+·0135	+·0080
11 „	+·0165	+·0105	+·0093	+·0035	−·0007	+·0040	+·0032	+·0023	+·0073	+·0065	+·0117	+·0111	+·0071
Noon	+·0086	+·0075	+·0070	±·0000	−·0020	+·0025	+·0034	+·0021	+·0073	+·0020	+·0060	+·0038	+·0040
1 p.m.	−·0016	−·0011	−·0005	−·0040	−·0064	−·0017	+·0016	−·0010	+·0032	−·0050	−·0023	−·0039	−·0019
2 „	−·0060	−·0073	−·0066	−·0080	−·0084	−·0041	+·0016	−·0027	+·0003	−·0086	−·0074	−·0082	−·0054
3 „	−·0083	−·0109	−·0127	−·0153	−·0125	−·0082	−·0012	−·0063	−·0047	−·0127	−·0095	−·0089	−·0092
4 „	−·0059	−·0103	−·0153	−·0169	−·0137	−·0114	−·0038	−·0074	−·0060	−·0121	−·0057	−·0051	−·0094
5 „	−·0041	−·0071	−·0138	−·0172	−·0150	−·0136	−·0062	−·0107	−·0047	−·0079	−·0022	−·0046	−·0090
6 „	−·0005	+·0013	−·0057	−·0116	−·0110	−·0113	−·0044	−·0075	+·0005	−·0003	+·0017	−·0019	−·0043
7 „	+·0025	+·0035	−·0006	−·0048	−·0060	−·0077	−·0022	−·0036	+·0062	+·0030	+·0034	+·0008	−·0005
8 „	+·0062	+·0057	+·0049	+·0069	+·0031	−·0011	+·0027	+·0071	+·0123	+·0060	+·0067	+·0033	+·0053
9 „	+·0062	+·0069	+·0069	+·0101	+·0113	+·0071	+·0089	+·0111	+·0115	+·0080	+·0053	+·0050	+·0082
10 „	+·0054	+·0077	+·0082	+·0120	+·0142	+·0116	+·0113	+·0142	+·0106	+·0096	+·0062	+·0062	+·0098
11 „	+·0048	+·0067	+·0065	+·0120	+·0132	+·0110	+·0091	+·0121	+·0069	+·0079	+·0041	+·0065	+·0084
Midnight	+·0036	+·0083	+·0070	+·0110	+·0114	+·0088	+·0071	+·0115	+·0033	+·0077	+·0026	+·0054	+·0074
1 a.m.	−·0021	+·0041	+·0057	+·0061	+·0073	+·0045	+·0021	+·0060	−·0022	+·0043	−·0025	+·0005	+·0029
Mean†	29·6852	29·3971	29·4611	29·4040	29·5810	29·5087	29·5080	29·4590	29·5240	29·5162	29·4587	29·4313	29·4945

* A correction for non-periodicity has been applied to all the values in this table.

† Of twenty-five hours.

KEW.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·241	29·809	30·125	29·981	30·336	30·0984
2 „	·243	·814	·127	·984	·336	·1008
3 „	·241	·811	·125	·984	·334	·0990
4 „	·237	·807	·120	·979	·332	·0950
5 „	·234	·804	·116	·975	·330	·0918
6 „	·237	·802	·116	·976	·334	·0930
7 „	·243	·802	·122	·979	·339	·0970
8 „	·255	·805	·130	·985	·347	·1044
9 „	·260	·807	·136	29·991	·355	·1098
10 „	·265	·810	·141	30·002	·365	1166
11 „	·263	·814	·142	·005	·367	·1182
Noon	·251	·808	·131	30·000	·360	·1100
1 p.m.	·238	·798	·123	29·994	·350	·1006
2 „	·234	·794	·117	·990	·339	·0948
3 „	·235	·795	·119	·993	·337	·0958
4 „	·238	·800	·120	·994	·341	·0986
5 „	·240	·805	·123	29·998	·344	·1020
6 „	·245	·810	·127	30·003	·355	·1080
7 „	·249	·819	·130	·007	·360	·1130
8 „	·254	·823	·133	·010	·361	·1162
9 „	·256	·827	·135	·008	·362	·1176
10 „	·256	·829	·135	·008	·365	·1186
11 „	·254	·834	·138	·007	·366	·1198
Midnight	30·253	29·834	30·135	30·005	30·358	30·1170
Mean	30·2467	29·8109	30·1278	29·9941	30·3489	30·1057
1 a.m. after Midnight	30·249	29·833	30·132	29·998	30·355	30·1134

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·794	29·899	30·263	29·521	29·787	29·8528
2 „	·792	·896	·259	·518	·781	·8492
3 „	·787	·890	·252	·510	·772	·8422
4 „	·783	·885	·246	·504	·769	·8374
5 „	·780	·883	·246	·502	·768	8358
6 „	·778	·881	·247	·501	·767	·8348
7 „	·782	·884	·251	·503	·769	·8378
8 „	·788	·891	·258	·512	·779	·8456
9 „	·791	·896	·262	·514	·785	·8496
10 „	·794	·904	·263	·516	·788	·8530
11 „	·795	·912	·265	·519	·790	·8562
Noon	·788	·911	·258	·511	·785	·8506
1 p.m.	·778	·908	·246	·503	·777	·8424
2 „	·770	·901	·234	·493	·768	·8332
3 „	·767	·898	·229	·491	·764	·8298
4 „	·767	·900	·223	·495	·761	·8292
5 „	·769	·905	·225	·498	·764	·8322
6 „	·777	·914	·230	·505	·771	·8394
7 „	·779	·918	·235	·509	·774	·8430
8 „	·780	·921	·239	·510	·774	·8448
9 „	·778	·925	·240	·514	·775	·8464
10 „	·781	·922	·240	·515	·771	·8458
11 „	·780	·922	·242	·513	·769	·8452
Midnight	29·782	29·919	30·241	29·512	29·766	29·8440
Mean	29·7817	29·9035	30·2456	29·5079	29·7739	29·8425
1 a.m. after Midnight	29·778	29·917	30·239	29 507	29·759	29·8400

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·570	29·737	30·043	29 957	30·080	29·8774
2 „	·565	·732	·038	·952	·077	·8728
3 „	·556	·725	·035	·945	·070	·8662
4 „	·554	·720	·032	·944	·070	·8640
5 „	·546	·720	·033	·944	·071	·8628
6 „	·545	·724	·037	·948	·077	·8662
7 „	·544	·729	·043	·954	·082	·8704
8 „	·547	·736	·050	·960	·088	·8762
9 „	·548	·740	·055	·965	·090	·8796
10 „	·549	·742	·057	·967	·091	·8812
11 „	·548	·738	·056	·967	·090	·8798
Noon	·544	·734	·050	·959	086	·8746
1 p.m.	·535	·727	·040	·950	·078	·8660
2 „	·535	·717	·029	·939	·065	·8570
3 „	·536	·712	·023	·935	·059	·8530
4 „	·542	·709	·018	·929	·053	·8502
5 „	·546	·709	·020	·931	·054	·8520
6 „	·556	·717	·025	·937	·054	·8578
7 „	·562	·725	·030	·943	·069	·8658
8 „	·568	·730	·032	·949	·073	·8704
9 „	·568	·730	·033	·953	·074	·8716
10 „	·570	·731	·029	·954	·073	·8714
11 „	·568	·732	·028	·955	·071	·8708
Midnight	29·564	29·733	30·023	29·953	30·073	29·8692
Mean	29·5527	29·7270	30 0358	29·9496	30·0737	29·8678
1 a.m. after Midnight	29·563	29·726	30·020	29·952	30·073	29·8668

KEW.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·834	29·731	29·798	29·651	29·836	29·7700
2 „	·831	·729	·793	·646	·832	·7662
3 „	·826	·726	·790	·644	·829	·7630
4 „	·823	·724	·787	·640	·827	·7602
5 „	·822	·725	·789	·642	·829	·7614
6 „	·826	·731	·798	·649	·837	·7682
7 „	·831	·737	·803	·654	·843	·7736
8 „	·834	·739	·805	·657	·845	·7760
9 „	·834	·742	·807	·661	·845	·7778
10 „	·836	·741	·808	·661	·846	·7784
11 „	·834	·739	·807	·660	·843	·7766
Noon	·827	·732	·802	·656	·838	·7710
1 p.m.	·823	·726	·799	·655	·834	·7674
2 „	·815	·717	·792	·649	·826	·7598
3 „	·808	·711	·786	·648	·822	·7550
4 „	·808	·709	·784	·647	·820	·7536
5 „	·812	·711	·786	·651	·824	·7568
6 „	·821	·714	·791	·657	·832	·7630
7 „	·829	·722	·806	·665	·845	·7734
8 „	·841	·734	·810	·675	·861	·7842
9 „	·845	·737	·814	·678	·867	·7882
10 „	·848	·740	·816	·678	·873	·7910
11 „	·849	·742	·818	·677	·874	·7920
Midnight	29·850	29·742	29·817	29·674	29·873	29·7912
Mean	29·8295	29·7309	29·8003	29·6573	29·8417	29·7716
1 a.m. after Midnight	29·844	29·739	29·813	29·668	29·869	29·7866

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·105	29·860	29·764	29·983	30·065	29·9554
2 „	·102	·855	·757	·977	·059	·9500
3 „	·100	·850	·750	·972	·055	·9454
4 „	·099	·846	·746	·970	·053	·9428
5 „	·103	·848	·748	·974	·054	·9454
6 „	·109	·854	·751	·979	·059	·9504
7 „	·112	·856	·754	·982	·063	·9534
8 „	·115	·859	·757	·984	·066	·9562
9 „	·113	·856	·756	·981	·064	·9540
10 „	·111	·852	·756	·979	·060	·9516
11 „	·108	·850	·756	·978	·056	·9496
Noon	·101	·844	·752	·975	·050	·9444
1 p.m.	·094	·840	·751	·971	·042	·9396
2 „	·085	·835	·746	·967	·036	·9338
3 „	·082	·829	·743	·965	·028	·9294
4 „	·081	·825	·742	·959	·023	·9260
5 „	·080	·824	·743	·957	·025	·9258
6 „	·084	·826	·748	·957	·029	·9288
7 „	·091	·832	·755	·961	·037	·9352
8 „	·104	·838	·766	·969	·050	·9454
9 „	·114	·844	·774	·976	·060	·9536
10 „	·119	·848	·776	·976	·069	·9576
11 „	·120	·845	·777	·978	·069	·9578
Midnight	30·119	29·842	29·777	29·972	30·067	29·9554
Mean	30·1021	29·8441	29·7560	29·9726	30·0516	29·9453
1 a.m. after Midnight	30·117	29·836	29·775	29·966	30·057	29·9502

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·964	29·977	29·913	29·776	29·893	29·9046
2 „	·960	·973	·908	·773	·887	·9002
3 „	·958	·972	·905	·769	·882	·8972
4 „	·957	·973	·906	·768	·878	·8964
5 „	·960	·979	·909	·770	·880	·8996
6 „	·965	·984	·913	·773	·882	·9034
7 „	·968	·988	·918	·775	·884	·9066
8 „	·971	·990	·920	·777	·885	·9086
9 „	·969	·689	·919	·778	·882	·9074
10 „	·968	·986	·916	·776	·881	·9054
11 „	·966	·984	·913	·774	·879	·9032
Noon	·962	·978	·907	·771	·872	·8980
1 p.m.	·956	·972	·903	·769	·867	·8934
2 „	·950	·966	·897	·767	·862	·8884
3 „	·945	·963	·894	·766	·859	·8854
4 „	·940	·958	·888	·765	·856	·8814
5 „	·936	·958	·885	·765	·856	·8800
6 „	·938	·961	·887	·769	·861	·8832
7 „	·942	·966	·894	·773	·866	·8882
8 „	·950	·975	·900	·781	·875	·8962
9 „	·959	·988	·909	·790	·885	·9062
10 „	·961	·996	·913	·793	·889	·9104
11 „	·960	·997	·915	·793	·890	·9110
Midnight	29·959	29·996	29·914	29·790	29·887	29·9092
Mean	29·9568	29·9779	29·9061	29·7750	29·8766	29·8985
1 a.m. after Midnight	29·954	29·994	29·911	29·783	29·881	29·9046

KEW.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·056	29·884	29·996	29·776	29·873	29·9170
2 „	·053	·878	·993	·772	·866	·9124
3 „	·049	·875	·992	·768	·862	·9092
4 „	·049	·876	·992	·765	·861	·9086
5 „	·053	·880	29·995	·766	·862	·9112
6 „	·057	·886	30·002	·768	·866	·9158
7 „	·061	·891	·006	·770	·871	·9198
8 „	·062	·894	·009	·772	·871	·9216
9 „	·061	·895	·009	·770	·869	·9208
10 „	·058	·895	·006	·767	·867	·9186
11 „	·054	·896	·006	·767	·865	·9176
Noon	·047	·893	30·002	·764	·861	·9134
1 p.m.	·042	·889	29·999	·762	·859	·9102
2 „	·036	·883	·994	·759	·856	·9056
3 „	·030	·880	·990	·758	·854	·9024
4 „	·025	·875	·983	·756	·850	·8978
5 „	·023	·872	·982	·756	·849	·8964
6 „	·025	·870	·984	·758	·851	·8976
7 „	·031	·873	·989	·763	·854	·9020
8 „	·040	·878	29·999	·771	·863	·9102
9 „	·049	·884	30·006	·779	·873	·9182
10 „	·056	·885	·011	·782	·879	·9226
11 „	·059	·882	·013	·782	·878	·9228
Midnight	30·058	29·879	30·013	29·781	29·876	29·9214
Mean	30·0472	29·8830	29·9988	29·7680	29·8640	29·9122
1 a.m. after Midnight	30·054	29·875	30·011	29·776	29·873	29·9178

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·917	29·835	29·736	29·804	29·959	29·8502
2 „	·914	·831	·727	·801	·957	·8460
3 „	·909	·828	·720	·798	·955	·8420
4 „	·908	·826	·714	·795	·956	·8398
5 „	·911	·827	·713	·794	·956	·8402
6 „	·916	·835	·712	·798	·963	·8448
7 „	·918	·838	·718	·802	·969	·8490
8 „	·920	·844	·723	·804	·971	·8524
9 „	·919	·844	·727	·804	·973	·8534
10 „	·921	·845	·726	·803	·973	·8536
11 „	·919	·844	·724	·804	·972	·8526
Noon	·914	·842	·721	·803	·967	·8494
1 p.m.	·907	·838	·718	·802	·962	·8454
2 „	·900	·837	·715	·800	·955	·8414
3 „	·896	·831	·713	·798	·949	·8374
4 „	·893	·829	·711	·795	·942	·8340
5 „	·891	·827	·710	·796	·938	·8324
6 „	·895	·829	·710	·799	·942	·8350
7 „	·901	·837	·719	·806	·948	·8422
8 „	·908	·848	·729	·818	·960	·8526
9 „	·912	·851	·733	·825	·966	·8574
10 „	·914	·852	·734	·830	·972	·8604
11 „	·910	·852	·733	·829	·976	·8600
Midnight	29·907	29·848	29·729	29·825	29·976	29·8570
Mean	29·9092	29·8383	29·7215	29·8055	29·9607	29·8470
1 a.m. after Midnight	29·901	29·842	29·721	29·820	29·973	29·8514

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·771	30·028	29·960	29·937	29·943	29·9278
2 „	·769	·026	·954	·934	·939	·9244
3 „	·760	·021	·949	·929	·936	·9190
4 „	·757	·017	·946	·924	·932	·9152
5 „	·755	·016	·948	·924	·934	·9154
6 „	·759	·024	·955	·933	·943	·9228
7 „	762	·029	·960	·942	·950	·9286
8 „	·767	·036	·965	·948	·954	·9340
9 „	·769	·038	·971	·955	·959	·9384
10 „	·769	·039	·970	·953	·959	·9380
11 „	·770	·039	·968	·950	·959	·9372
Noon	·765	·034	·963	·945	·953	·9320
1 p.m.	·760	·029	·959	·940	·949	·9274
2 „	·757	·023	·952	·932	·943	·9214
3 „	·753	·018	·947	·927	·940	·9170
4 „	·754	·012	·943	·924	·938	·9142
5 „	·755	·014	·946	·924	·940	·9158
6 „	·759	·018	·949	·926	·946	·9196
7 „	·766	·027	·955	·932	·954	·9268
8 „	·772	·037	·962	·939	·958	·9336
9 „	·773	·040	·964	·940	·958	·9350
10 „	·775	·043	·965	·939	·958	·9360
11 „	·773	·041	·966	·935	·955	·9340
Midnight	29·770	30·037	29·965	29·929	29·951	29·9304
Mean	29·7642	30·0286	29·9576	29·9359	29·9480	29·9268
1 a.m. after Midnight	29·767	30·033	29·962	29·924	29·949	29·9270

KEW.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·883	29·986	29·756	30·099	29·855	29·9158
2 „	·880	·983	·751	·093	·851	·9116
3 „	·875	·978	·744	087	·847	·9062
4 „	·875	·977	·745	·085	·850	·9064
5 „	·879	·982	·742	·083	·849	·9070
6 „	·883	·988	·745	·087	·851	·9108
7 „	·892	29·996	·749	·093	·859	·9178
8 „	·898	30·005	·751	·100	·865	·9238
9 „	·903	·008	·751	·102	·866	·9260
10 „	·904	·009	·750	·102	·863	·9256
11 „	·906	30·007	·748	·101	·864	·9252
Noon	·901	29·997	·741	·094	·857	·9180
1 p.m.	·895	·988	·737	·086	·850	·9112
2 „	·893	·979	·735	·081	·842	·9060
3 „	·892	·976	·735	·078	·837	·9036
4 „	·893	·973	·736	·079	·837	·9036
5 „	·900	·975	·741	·083	·840	·9078
6 „	·910	·983	·752	·092	·848	·9170
7 „	·916	·988	·756	·096	·849	·9210
8 „	·921	·991	·758	·101	·853	·9248
9 „	·925	·994	·760	·106	·856	·9282
10 „	·925	·995	·760	·108	·854	·9284
11 „	·922	·993	·759	·109	·851	·9268
Midnight	29·919	29·993	29·759	30·107	29·850	29·9256
Mean	29·8996	29·9893	29 7484	30·0938	29·8518	29·9166
1 a.m. after Midnight	29·915	29·991	29·756	30·104	29·847	29·9226

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·847	29·659	29·714	30·189	29·933	29·8684
2 „	·845	·658	·712	·187	·931	·8666
3 „	·839	·656	·707	·184	·927	·8626
4 „	·838	·651	·705	·181	·924	·8598
5 „	·838	·654	·706	·180	·923	·8602
6 „	·842	·659	·709	·180	·924	·8628
7 „	·847	·663	·714	·183	·631	·8676
8 „	·856	·673	·722	·190	·941	·8764
9 „	·859	·677	·722	·193	·947	·8796
10 „	·864	·681	·728	·197	·952	·8844
11 „	·861	·681	·726	·195	·953	·8832
Noon	·853	·670	·718	·185	·942	·8736
1 p.m.	·845	·661	·711	·177	·934	·8656
2 „	·840	·650	·705	·168	·928	·8582
3 „	·840	·644	·706	·166	·928	·8568
4 „	·842	·640	·711	·167	·931	·8582
5 „	·844	·638	·714	·170	·935	·8602
6 „	·846	·637	·719	·178	·940	·8640
7 „	·845	·636	·720	·180	·945	·8652
8 „	·845	·635	·723	·181	·948	·8664
9 „	·840	·632	·724	·185	·951	8664
10 „	·837	·629	·725	·186	·652	·8658
11 „	·832	·627	·723	·186	·951	·8638
Midnight	29·828	29·623	29·721	30·183	29·947	29·8604
Mean	29·8447	29·6514	29·7160	30·1821	29·9383	29·8665
1 a.m. after Midnight	29·821	29·619	29·714	30·173	29·940	29·8534

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·456	29·983	29·692	30·291	29·911	29·8666
2 „	·455	·989	·692	·292	·906	·8668
3 „	·454	·989	·690	·290	·904	·8654
4 „	·451	·984	·685	·287	·897	·8608
5 „	·450	·979	·679	·286	·891	·8570
6 „	·450	·982	·679	·290	·891	·8584
7 „	·451	·988	·683	·290	·892	·8608
8 „	·456	29·998	·694	·296	·896	·8680
9 „	·460	30·008	·701	·300	·900	·8738
10 „	·469	·017	·707	·305	·907	·8810
11 „	·463	·014	·702	·302	·910	·8782
Noon	·455	·005	·690	·292	·899	·8682
1 p.m.	·448	30·001	·682	·280	·892	·8606
2 „	·443	29·998	·677	·271	·886	·8550
3 „	·444	30·002	·680	·271	·887	·8568
4 „	·450	009	·680	·273	·891	·8606
5 „	·451	·014	·681	·276	·896	·8636
6 „	·454	·017	·683	·280	·901	·8670
7 „	·455	·022	·688	·283	·905	·8706
8 „	·455	·025	·694	·286	·908	·8736
9 „	·457	·027	·694	·288	·913	·8758
10 „	·456	·025	·693	·291	·917	·8764
11 „	·457	·026	·690	·293	·919	·8770
Midnight	29·452	30·024	29·686	30·294	29·918	29·8748
Mean	29 4538	30 0053	29·6884	30 2874	29·9015	29·8674
1 a.m. after Midnight	29·444	30·022	29·682	30·291	29·912	29·8702

KEW.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·8703	29·8657	29·8967	29·9138	29·9559	29·9004
2 „	·8681	·8637	·8926	·9108	·9518	·8973
3 „	·8634	·8601	·8883	·9067	·9478	·8931
4 „	·8617	·8572	·8853	·9035	·9458	·8905
5 „	·8615	·8581	·8853	·9033	·9456	·8907
6 „	·8647	·8625	·8887	·9068	·9495	·8943
7 „	·8683	·8668	·8934	·9106	·9543	·8985
8 „	·8730	·8725	·8987	·9154	·9590	·9036
9 „	·8746	·8750	·9013	·9178	·9613	·9059
10 „	·8762	·8768	·9023	·9190	·9627	·9073
11 „	·8740	·8765	·9011	·9185	·9623	·9065
Noon	·8679	·8707	·8946	·9146	·9558	·9005
1 p.m.	·8608	·8648	·8890	·9074	·9495	·8942
2 „	·8554	·8583	·8828	·9013	·9422	·8879
3 „	·8530	·8549	·8804	·8997	·9387	·8852
4 „	·8534	·8533	·8783	·8986	·9369	·8840
5 „	·8545	·8543	·8797	·9004	·9388	·8854
6 „	·8599	·8580	·8838	·9051	·9442	·8900
7 „	·8644	·8638	·8898	·9098	·9505	·8955
8 „	·8706	·8696	·8954	·9158	·9570	·9015
9 „	·8737	·8733	·8988	·9202	·9617	·9054
10 „	·8755	·8747	·8998	·9217	·9643	·9070
11 „	·8743	·8744	·9002	·9214	·9641	·9068
Midnight	29·8724	29·8725	29·8984	29·9188	29·9618	29·9046
Mean	29·8663	29·8657	29·8919	29·9109	29·9521	29·8973
1 a.m. after Midnight	29·8673	29·8689	29·8947	29·9135	29·9573	29·9003

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	−·0001	+·0040	+·0044	+·0061	+·0073	+·0059	+·0050	+·0036	+·0006	+·0024	−·0051	+·0009	+·0029
2 „	+·0017	+·0010	+·0003	+·0016	+·0021	+·0015	+·0003	−·0006	−·0027	−·0021	−·0063	+·0010	−·0002
3 „	−·0007	−·0055	−·0059	−·0023	−·0023	−·0015	−·0029	−·0047	−·0081	−·0078	−·0097	−·0006	−·0044
4 „	−·0053	−·0098	−·0077	−·0058	−·0047	−·0023	−·0035	−·0069	−·0119	−·0079	−·0119	−·0053	−·0070
5 „	−·0092	−·0108	−·0084	−·0053	−·0019	+·0009	−·0010	−·0066	−·0116	−·0076	−·0108	−·0093	−·0068
6 „	−·0086	−·0113	−·0046	+·0008	+·0034	+·0047	+·0036	−·0020	−·0042	−·0041	−·0076	−·0080	−·0032
7 „	−·0052	−·0078	+·0001	+·0055	+·0066	+·0079	+·0076	+·0021	+·0016	+·0027	−·0022	−·0058	+·0010
8 „	+·0016	+·0006	+·0063	+·0073	+·0096	+·0099	+·0094	+·0055	+·0070	+·0084	+·0072	+·0013	+·0061
9 „	+·0063	+·0051	+·0101	+·0084	+·0076	+·0087	+·0085	+·0064	+·0115	+·0103	+·0111	+·0069	+·0084
10 „	+·0125	+·0090	+·0122	+·0083	+·0054	+·0067	+·0063	+·0066	+·0111	+·0096	+·0165	+·0140	+·0098
11 „	+·0135	+·0127	+·0112	+·0058	+·0037	+·0045	+·0053	+·0055	+·0103	+·0090	+·0159	+·0110	+·0090
Noon	+·0046	+·0077	+·0065	−·0005	−·0013	−·0007	+·0010	+·0023	+·0052	+·0015	+·0070	+·0009	+·0030
1 p.m.	−·0054	±·0000	−·0017	−·0048	−·0059	−·0053	−·0022	−·0018	+·0006	−·0056	−·0004	−·0069	−·0033
2 „	−·0118	−·0087	−·0103	−·0131	−·0115	−·0103	−·0068	−·0059	−·0054	−·0111	−·0072	−·0127	−·0096
3 „	−·0115	−·0115	−·0138	−·0186	−·0157	−·0133	−·0101	−·0099	−·0097	−·0138	−·0079	−·0110	−·0123
4 „	−·0093	−·0116	−·0162	−·0207	−·0188	−·0173	−·0147	−·0134	−·0125	−·0140	−·0059	−·0074	−·0135
5 „	−·0065	−·0081	−·0139	−·0182	−·0188	−·0187	−·0161	−·0150	−·0109	−·0101	−·0033	−·0045	−·0121
6 „	−·0012	−·0004	−·0077	−·0127	−·0156	−·0155	−·0150	−·0125	−·0070	−·0012	+·0012	−·0013	−·0075
7 „	+·0032	+·0038	+·0007	−·0029	−·0090	−·0105	−·0106	−·0053	+·0002	+·0025	+·0030	+·0022	−·0020
8 „	+·0058	+·0061	+·0058	+·0072	+·0014	−·0025	−·0024	+·0050	+·0070	+·0061	+·0048	+·0050	+·0040
9 „	+·0066	+·0082	+·0074	+·0105	+·0099	+·0075	+·0056	+·0098	+·0084	+·0092	+·0054	+·0071	+·0079
10 „	+·0069	+·0082	+·0077	+·0126	+·0141	+·0117	+·0099	+·0127	+·0095	+·0091	+·0055	+·0075	+·0095
11 „	+·0075	+·0081	+·0075	+·0129	+·0145	+·0123	+·0101	+·0123	+·0075	+·0072	+·0041	+·0080	+·0093
Midnight	+·0041	+·0074	+·0063	+·0114	+·0123	+·0105	+·0087	+·0092	+·0039	+·0057	+·0013	+·0056	+·0071
1 a.m.	−·0001	+·0040	+·0044	+·0061	+·0073	+·0059	+·0050	+·0036	+·0006	+·0024	−·0051	+·0009	+·0029
Mean†	30·1060	29·8424	29·8677	29·7722	29·9455	29·8987	29·9124	29·8472	29·9268	29·9168	29·8660	29·8675	29·8975

* A correction for non-periodicity has been applied to all the values in this table. † Of twenty-five hours.

GREENWICH.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·091	29·666	29·978	29·838	30·188	29·9522
2 „	·092	·671	·977	·841	·191	·9544
3 „	·091	·668	·976	·840	·187	·9524
4 „	·086	·662	·972	·837	·185	·9484
5 „	·083	·662	·968	·832	·184	·9458
6 „	·083	·662	·969	·834	·188	·9472
7 „	·091	·664	·974	·836	·192	·9514
8 „	·103	·668	·981	·842	·201	·9590
9 „	·108	·670	·988	·848	·210	·9648
10 „	·111	·670	·994	·856	·220	·9702
11 „	·108	·674	·994	·861	·221	·9716
Noon	·096	·664	·981	·856	·214	·9622
1 p.m.	·084	·655	·973	·852	·203	·9534
2 „	·083	·653	·971	·848	·195	·9500
3 „	·084	·654	·971	·852	·193	·9508
4 „	·087	·658	·974	·852	·196	·9534
5 „	·089	·663	·977	·856	·200	·9570
6 „	·092	·667	·980	·860	·202	·9602
7 „	·099	·676	·983	·864	·207	·9658
8 „	·101	·680	·984	·867	·207	·9678
9 „	·104	·684	·986	·864	·208	·9692
10 „	·104	·686	·986	·864	·210	·9700
11 „	·105	·688	·989	·863	·214	·9718
Midnight	30·102	29·691	29·987	29·861	30·209	29·9700
Mean	30·0949	29·6690	29·9797	29·8510	30·2010	29·9591
1 a.m. after Midnight	30·099	29·689	29·985	29·855	30·206	29·9668

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·645	29·747	30·120	29·383	29·648	29·7086
2 „	·642	·745	·117	·381	·641	·7052
3 „	·637	·739	·111	·373	·632	·6984
4 „	·634	·736	·107	·366	·629	·6944
5 „	·631	·734	·107	·365	·628	·6930
6 „	·630	·732	·107	·363	·628	·6920
7 „	·633	·731	·109	·364	·632	·6938
8 „	·638	·740	·116	·370	·638	·7004
9 „	·642	·745	·119	·373	·643	·7044
10 „	·644	·753	·120	·376	·648	·7082
11 „	·644	·761	·123	·375	·651	·7108
Noon	·640	·761	·116	·368	·646	·7062
1 p.m.	·631	·756	·103	·362	·637	·6978
2 „	·625	752	·092	·355	·629	·6906
3 „	·622	·747	·085	·352	·626	·6864
4 „	·621	·749	·083	·354	·623	·6860
5 „	·621	·755	·083	·360	·625	·6888
6 „	·628	·763	·087	·366	·632	·6952
7 „	·631	·767	·091	·368	·636	·6986
8 „	·632	·769	·094	·368	·635	·6996
9 „	·629	·773	·096	·373	·635	·7012
10 „	·630	·771	·098	·375	·631	·7010
11 „	·631	·770	·099	·373	·631	·7008
Midnight	29·630	29·766	30·100	29·373	29·627	29·6992
Mean	29·6330	29·7526	30·1035	29·3682	29·6346	29·6984
1 a.m. after Midnight	29·629	29·764	30·097	29·369	29·621	29·6960

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·420	29·589	29·895	29·816	29·937	29·7314
2 „	·414	·584	·891	·812	·935	·7272
3 „	·405	·578	·889	·804	·928	·7208
4 „	·400	·574	·886	·802	·929	·7182
5 „	·394	·576	·887	·803	·931	·7182
6 „	·395	·577	·891	·808	·937	·7216
7 „	·396	·583	·897	·812	·942	·7260
8 „	·397	·587	·903	·819	·947	·7306
9 „	·398	·594	·908	·822	·950	·7344
10 „	·396	·595	·910	·825	·950	·7352
11 „	·396	·591	·910	·823	·951	·7342
Noon	·395	·589	·902	·818	·949	·7306
1 p.m.	·389	·583	·890	·807	·941	·7220
2 „	·385	·577	·883	·800	·929	·7148
3 „	·387	·569	·876	·793	·922	·7094
4 „	·390	·567	·872	·789	·916	·7068
5 „	·394	·567	·873	·790	·916	·7080
6 „	·403	·573	·878	·796	·923	·7146
7 „	·412	·580	·882	·801	·931	·7212
8 „	·416	·584	·885	·806	·934	·7250
9 „	·418	·583	·882	·811	·934	·7256
10 „	·418	·584	·880	·813	·932	·7254
11 „	·417	·584	·877	·814	·931	·7246
Midnight	29·414	29·583	29·875	29·813	29·930	29·7230
Mean	29·4020	29·5813	29·8884	29·8081	29·9344	29·7229
1 a.m after Midnight	29·413	29·578	29·872	29·811	29·930	29·7208

GREENWICH.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·688	29·598	29·662	29·514	29·693	29·6310
2 „	·684	·595	·658	·509	·690	·6272
3 „	·678	·594	·654	·507	·688	·6242
4 „	·675	·592	·651	·503	·685	·6212
5 „	·675	·593	·653	·504	·690	·6230
6 „	·679	·598	·659	·511	·698	·6290
7 „	·686	·603	·666	·518	·702	·6350
8 „	·689	·606	·668	·520	·705	·6376
9 „	·690	·608	·670	·523	·707	·6396
10 „	·692	·608	·673	·524	·708	·6410
11 „	·690	·605	·674	·522	·703	·6388
Noon	·685	·599	·667	·520	·700	·6342
1 p.m.	·681	·592	·662	·519	·695	·6298
2 „	·676	·587	·657	·514	·690	·6248
3 „	·668	·576	·650	·511	·683	·6176
4 „	·668	·574	·648	·512	·683	·6170
5 „	·672	·576	·651	·515	·686	·6200
6 „	·678	·579	·653	·521	·693	·6248
7 „	·688	·585	·661	·529	·703	·6332
8 „	·696	·596	·670	·536	·718	·6432
9 „	697	·600	·676	·538	·725	·6472
10 „	·700	·603	·677	·539	·729	·6496
11 „	·703	·607	·682	·539	·733	·6528
Midnight	29·703	29·608	29·680	29·535	29·732	29·6516
Mean	29·6850	29·5951	29·6634	29·5201	29·7016	29·6331
1 a.m. after Midnight	29·696	29·606	29·677	29·531	29·726	29·6472

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·955	29·723	29·626	29·842	29·923	29·8138
2 „	·950	·718	·619	·835	·916	·8076
3 „	·949	·713	·612	·830	·912	·8032
4 „	·948	·709	·607	·830	·910	·8008
5 „	·950	·710	·608	·834	·911	·8026
6 „	·957	·712	·612	·838	·917	·8072
7 „	·961	·715	·614	·841	·920	·8102
8 „	·965	·718	·619	·843	·923	·8136
9 „	·964	·717	·618	·841	·922	·8124
10 „	·965	·716	·619	·839	·919	·8116
11 „	·963	·716	·620	·837	·914	·8100
Noon	·959	·707	·617	·836	·910	·8058
1 p.m.	·952	·703	·613	·832	·902	·8004
2 „	·949	·699	·613	·829	·897	·7974
3 „	·943	·694	·609	·824	·889	·7918
4 „	·940	·692	·607	·820	·885	·7888
5 „	·939	·689	·607	·817	·885	·7874
6 „	·940	·690	·611	·819	·889	·7898
7 „	·945	·692	·617	·822	·897	·7946
8 „	·955	·698	·626	·828	·909	·8032
9 „	·966	·706	·633	·834	·918	·8114
10 „	·970	·708	·638	·834	·922	·8144
11 „	·972	·707	·640	·834	·922	·8150
Midnight	29·970	29·705	29·640	29·831	29·920	29·8132
Mean	29·9553	29·7065	29·6185	29·8321	29·9097	29·8044
1 a.m. after Midnight	29·967	29·701	29·637	29·825	29·915	29·8090

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·824	29·834	29·776	29·641	29·751	29·7652
2 „	·818	·829	·771	·639	·745	·7604
3 „	·816	·828	·767	·635	·740	·7572
4 „	·815	·829	·768	·634	·738	·7568
5 „	·818	·835	·769	·637	·740	·7598
6 „	·822	·841	·773	·638	·742	·7632
7 „	·826	·847	·779	·641	·744	·7674
8 „	·828	·852	·782	·644	·744	·7700
9 „	·826	·854	·783	·644	·744	·7702
10 „	·827	·855	·784	·644	·743	·7706
11 „	·826	·853	·781	·641	·740	·7682
Noon	·822	·844	·774	·640	·736	·7632
1 p.m.	·816	·837	·769	·637	·730	·7578
2 „	·812	·836	·766	·636	·725	·7550
3 „	·807	·830	·761	·635	·721	·7508
4 „	·802	·828	·757	·634	·718	·7478
5 „	·798	·827	·752	·633	·718	·7456
6 „	·799	·829	·754	·637	·723	·7484
7 „	·804	·833	·758	·641	·727	·7526
8 „	·809	·838	·765	·645	·734	·7582
9 „	·819	·849	·773	·657	·744	·7684
10 „	·821	·856	·778	·658	·748	·7722
11 „	·821	·856	·781	·658	·748	·7728
Midnight	29·819	29·855	29·779	29·654	29·745	29·7704
Mean	29·8165	29·8406	29·7708	29·6418	29·7370	29·7613
1 a.m. after Midnight	29·815	29·850	29 775	29·647	29·739	29·7652

GREENWICH.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·910	29·748	29·857	29·634	29·733	29·7764
2 „	·907	·740	·853	·629	·726	·7710
3 „	·902	·737	·851	·626	·723	·7678
4 „	·902	·738	·852	·623	·723	·7676
5 „	·906	·740	·855	·625	·724	·7700
6 „	·910	·747	·859	·627	·727	·7740
7 „	·914	·752	·865	·629	·733	·7786
8 „	·916	·756	·867	·632	·734	·7810
9 „	·915	·758	·869	·631	·734	·7814
10 „	·916	·755	·869	·630	·733	·7806
11 „	·912	·757	·871	·631	·731	·7804
Noon	·906	·755	·866	·627	·727	·7762
1 p.m.	·902	·751	·863	·625	·725	·7732
2 „	·897	·747	·860	·625	·723	·7704
3 „	·892	·741	·854	·621	·720	·7656
4 „	·888	·738	·850	·619	·717	·7624
5 „	·884	·735	·847	·619	·715	·7600
6 „	·886	·735	·848	·621	·717	·7616
7 „	·890	·739	·853	·625	·721	·7656
8 „	·897	·743	·860	·632	·726	·7716
9 „	·906	·748	·869	·639	·734	·7792
10 „	·912	·750	·873	·642	·738	·7830
11 „	·916	·746	·874	·641	·737	·7828
Midnight	29·914	29·744	29·874	29·639	29·736	29·7814
Mean	29·9042	29·7459	29·8608	29·6288	29·7274	29·7734
1 a.m. after Midnight	29·909	29·739	29·871	29·635	29·733	29·7774

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·776	29·696	29·603	29·671	29·814	29·7120
2 „	·770	·692	·594	·666	·812	·7068
3 „	·766	·688	·587	·662	·810	·7026
4 „	·762	·685	·581	·659	·810	·6994
5 „	·765	·688	·580	·661	·812	·7012
6 „	·769	·694	·578	·664	·818	·7046
7 „	·773	·701	·583	·669	·824	·7100
8 „	·778	·704	·587	·671	·827	·7134
9 „	·780	·707	·591	·672	·829	·7158
10 „	·781	·708	·592	·672	·830	·7166
11 „	·782	·706	·593	·671	·828	·7160
Noon	·777	·704	·588	·671	·823	·7126
1 p.m.	·773	·701	·584	·670	·819	·7094
2 „	·767	·702	·581	·669	·813	·7064
3 „	·762	·695	·579	·667	·807	·7020
4 „	·759	·696	·576	·665	·802	·6996
5 „	·758	·695	·575	·663	·800	·6982
6 „	·758	·696	·577	·666	·802	·6998
7 „	·760	·704	·582	·674	·808	·7056
8 „	·768	·712	·591	·684	·820	·7150
9 „	·772	·714	·598	·691	·825	·7200
10 „	·771	·716	·599	·693	·830	·7218
11 „	·769	·715	·597	·693	·832	·7212
Midnight	29·766	29·710	29·595	29·689	29·832	29·7184
Mean	29·7693	29·7012	29·5871	29·6722	29·8178	29·7095
1 a.m. after Midnight	29·758	29·703	29·587	29·687	29·829	29·7128

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·627	29·887	29·821	29·799	29·798	29·7864
2 „	·623	·887	·814	·795	·794	·7826
3 „	·616	·879	·810	·789	·789	·7766
4 „	·612	·876	·805	·786	·788	·7734
5 „	·611	·876	·807	·786	·791	·7742
6 „	·614	·880	·814	·794	·799	·7802
7 „	·619	·888	·820	·803	·805	·7870
8 „	·624	·893	·824	·811	·811	·7926
9 „	·626	·897	·830	·817	·816	·7972
10 „	·628	·899	·829	·817	·817	·7980
11 „	·625	·897	·828	·813	·814	·7954
Noon	·622	·892	·823	·810	·809	·7912
1 p.m.	·620	·888	·819	·804	·804	·7870
2 „	·616	·883	·814	·798	·802	·7826
3 „	·615	·878	·810	·793	·798	·7788
4 „	·615	·875	·805	·790	·798	·7766
5 „	·616	·875	·807	·789	·798	·7770
6 „	·619	·879	·810	·791	·805	·7808
7 „	·627	·888	·816	·797	·812	·7880
8 „	·631	·895	·822	·803	·815	·7932
9 „	·633	·898	·826	·803	·814	·7948
10 „	·632	·900	·825	·802	·813	·7944
11 „	·634	·899	·827	·799	·809	·7936
Midnight	29·629	29·895	29·825	29·793	29·806	29·7896
Mean	29·6223	29·8877	29·8180	29·7993	29·8044	29 7863
1 a.m. after Midnight	29·624	29·892	29·823	29·786	29·803	29·7856

GREENWICH.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·741	29·847	29·622	29·957	29·709	29·7751
2 „	·738	·843	·617	·951	·703	·7704
3 „	·733	·840	·612	·945	·700	·7660
4 „	·732	·837	·606	·944	·701	·7640
5 „	·735	·841	·608	·943	·700	·7654
6 „	·739	·846	·610	·944	·703	·7684
7 „	·749	·856	·615	·953	·712	·7770
8 „	·754	·865	·618	·958	·718	·7826
9 „	·761	·867	·616	·960	·718	·7844
10 „	·764	·868	·616	·962	·718	·7856
11 „	·765	·868	·613	·959	·716	·7842
Noon	·758	·860	·605	·954	·710	·7774
1 p.m.	·752	·851	·601	·945	·704	·7706
2 „	·752	·843	·599	·940	·696	·7660
3 „	·751	·840	·598	·938	·692	·7638
4 „	·751	·836	·599	·938	·692	·7632
5 „	·759	·838	·605	·943	·695	·7680
6 „	·768	·847	·614	·952	·703	·7768
7 „	·774	·851	·619	·954	·704	·7804
8 „	·779	·852	·620	·959	·706	·7832
9 „	·783	·854	·624	·965	·708	·7868
10 „	·783	·857	·624	·965	·706	·7870
11 „	·781	·856	·623	·966	·704	·7860
Midnight	29·778	29·853	29·623	29·963	29·701	29·7836
Mean	29·7575	29·8507	29·6128	29·9524	29·7050	29·7757
1 a.m. after Midnight	29·773	29·852	29·621	29·962	29·701	29·7818

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·703	29·522	29·570	30·041	29·781	29·7234
2 „	·701	·522	·566	·041	·779	·7218
3 „	·695	·519	·564	·037	·777	·7184
4 „	·693	·515	·562	·034	·772	·7152
5 „	·694	·515	·564	·033	·772	·7156
6 „	·696	·521	·566	·033	·773	·7178
7 „	·701	·526	·571	·037	·779	·7228
8 „	·709	·534	·576	·043	·790	·7304
9 „	·715	·539	·578	·046	·796	·7348
10 „	·719	·540	·581	·050	·804	·7388
11 „	·714	·540	·581	·048	·805	·7376
Noon	·709	·531	·571	·038	·798	·7294
1 p.m.	·703	·522	·566	·029	·788	·7216
2 „	·697	·515	·559	·022	·781	·7148
3 „	·698	·510	·560	·019	·783	·7140
4 „	·699	·507	·563	·021	·784	·7148
5 „	·701	·505	·567	·024	·788	·7170
6 „	·705	·502	·572	·031	·791	·7202
7 „	·704	·498	·573	·032	·795	·7204
8 „	·701	·498	·574	·033	·797	·7206
9 „	·698	·498	·576	·036	·800	·7216
10 „	·695	·496	·577	·036	·799	·7206
11 „	·691	·494	·578	·036	·798	·7194
Midnight	29·685	29·489	29·576	30·034	29·795	29·7158
Mean	29·7011	29·5149	29·5705	30·0348	29·7885	29·7220
1 a.m. after Midnight	29·679	29·483	29·571	30·030	29·789	29·7104

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·318	29 841	29·551	30·142	29·760	29·7224
2 „	·316	·843	·550	·141	·758	·7216
3 „	·315	·847	·549	·140	·754	·7210
4 „	·314	·842	·545	·138	·749	·7176
5 „	·313	·837	·539	·137	·744	·7140
6 „	·313	·838	·539	·141	·741	·7144
7 „	·314	·844	·542	·143	·742	·7170
8 „	·319	·853	·551	·148	·747	·7236
9 „	·325	·864	·560	·153	·752	·7308
10 „	·330	·873	·561	·158	·760	·7364
11 „	·324	·872	·557	·154	·759	·7332
Noon	·316	·862	·547	·148	·751	·7248
1 p.m.	·308	·855	·540	·134	·744	·7162
2 „	·305	·856	·538	·125	·738	·7124
3 „	·306	·859	·539	·126	·739	·7138
4 „	·310	·864	·540	·127	·743	·7168
5 „	·314	·871	·541	·130	·748	·7208
6 „	·316	·874	·541	·131	·753	·7230
7 „	·318	·877	·545	·134	·756	·7260
8 „	·318	·879	·551	·137	·758	·7286
9 „	·317	·882	·550	·138	·761	·7296
10 „	·317	·881	551	·139	·765	·7306
11 „	·320	·882	·548	·142	·768	·7320
Midnight	29·313	29·881	29·544	30·141	29·767	29·7292
Mean	29·3158	29·8615	29·5466	30·1395	29·7524	29·7232
1 a.m. after Midnight	29·307	29·880	29·542	30·142	29·761	29·7264

GREENWICH.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·7248	29·7248	29·7568	29·7732	29·8113	29·7582
2 „	·7213	·7224	·7523	·7700	·8075	·7547
3 „	·7169	·7192	·7485	·7657	·8033	·7507
4 „	·7144	·7163	·7452	·7630	·8016	·7481
5 „	·7146	·7173	·7454	·7633	·8023	·7486
6 „	·7173	·7207	·7481	·7663	·8059	·7516
7 „	·7219	·7258	·7529	·7705	·8106	·7564
8 „	·7267	·7313	·7577	·7751	·8154	·7612
9 „	·7292	·7350	·7608	·7775	·8184	·7642
10 „	·7311	·7367	·7622	·7794	·8208	·7661
11 „	·7291	·7367	·7621	·7779	·8194	·7650
Noon	·7238	·7307	·7548	·7738	·8144	·7595
1 p.m.	·7176	·7245	·7494	·7680	·8077	·7533
2 „	·7137	·7208	·7444	·7634	·8015	·7488
3 „	·7113	·7161	·7410	·7609	·7978	·7454
4 „	·7109	·7153	·7395	·7601	·7964	·7444
5 „	·7121	·7163	·7404	·7616	·7978	·7457
6 „	·7160	·7196	·7438	·7659	·8028	·7496
7 „	·7210	·7242	·7483	·7701	·8081	·7543
8 „	·7253	·7287	·7535	·7748	·8133	·7591
9 „	·7285	·7324	·7574	·7791	·8172	·7629
10 „	·7294	·7340	·7588	·7800	·8194	·7642
11 „	·7300	·7337	·7596	·7798	·8198	·7644
Midnight	29·7269	29·7317	29·7582	29·7772	29·8167	29·7621
Mean	29·7214	29·7256	29·7517	29·7707	29·8096	29·7558
1 a.m. after Midnight	29·7224	29·7281	29·7548	29·7733	29·8128	29·7583

TABLE OF DIURNAL RANGE.*

——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	+ ·0001	+ ·0040	+ ·0033	+ ·0055	+ ·0068	+ ·0037	+ ·0033	+ ·0028	− ·0003	+ ·0026	− ·0046	+ ·0011	+ ·0023
2 „	+ ·0017	+ ·0011	− ·0005	+ ·0010	+ ·0008	− ·0011	− ·0021	− ·0024	− ·0041	− ·0024	− ·0056	+ ·0002	− ·0012
3 „	− ·0009	− ·0052	− ·0064	− ·0026	− ·0034	− ·0043	− ·0054	− ·0067	− ·0100	− ·0071	− ·0085	− ·0006	− ·0052
4 „	− ·0055	− ·0086	− ·0086	− ·0063	− ·0056	− ·0047	− ·0056	− ·0099	− ·0132	− ·0094	− ·0112	− ·0042	− ·0078
5 „	− ·0087	− ·0095	− ·0081	− ·0052	− ·0036	− ·0017	− ·0033	− ·0081	− ·0124	− ·0083	− ·0102	− ·0079	− ·0073
6 „	− ·0079	− ·0100	− ·0043	+ ·0001	+ ·0012	+ ·0017	+ ·0007	− ·0048	− ·0063	− ·0055	− ·0075	− ·0077	− ·0043
7 „	− ·0043	− ·0077	+ ·0006	+ ·0055	+ ·0044	+ ·0059	+ ·0052	+ ·0006	+ ·0005	+ ·0028	− ·0019	− ·0053	+ ·0005
8 „	+ ·0026	− ·0005	+ ·0056	+ ·0074	+ ·0080	+ ·0085	+ ·0076	+ ·0040	+ ·0061	+ ·0081	+ ·0062	+ ·0012	+ ·0053
9 „	+ ·0078	+ ·0040	+ ·0098	+ ·0087	+ ·0070	+ ·0087	+ ·0080	+ ·0063	+ ·0108	+ ·0096	+ ·0111	+ ·0082	+ ·0083
10 „	+ ·0126	+ ·0083	+ ·0111	+ ·0094	+ ·0064	+ ·0091	+ ·0071	+ ·0071	+ ·0116	+ ·0105	+ ·0157	+ ·0136	+ ·0102
11 „	+ ·0134	+ ·0114	+ ·0105	+ ·0066	+ ·0050	+ ·0067	+ ·0069	+ ·0065	+ ·0090	+ ·0089	+ ·0150	+ ·0102	+ ·0091
Noon	+ ·0034	+ ·0074	+ ·0074	+ ·0013	+ ·0010	+ ·0017	+ ·0026	+ ·0030	+ ·0049	+ ·0018	+ ·0074	+ ·0017	+ ·0036
1 p.m.	− ·0060	− ·0005	− ·0008	− ·0038	− ·0042	− ·0037	− ·0004	− ·0002	+ ·0007	− ·0053	+ ·0001	− ·0071	− ·0026
2 „	− ·0100	− ·0072	− ·0076	− ·0095	− ·0070	− ·0065	− ·0032	− ·0032	− ·0037	− ·0102	− ·0062	− ·0111	− ·0071
3 „	− ·0098	− ·0108	− ·0125	− ·0174	− ·0124	− ·0107	− ·0081	− ·0077	− ·0074	− ·0127	− ·0064	− ·0098	− ·0105
4 „	− ·0078	− ·0107	− ·0147	− ·0186	− ·0152	− ·0137	− ·0113	− ·0101	− ·0096	− ·0135	− ·0051	− ·0070	− ·0115
5 „	− ·0048	− ·0074	− ·0130	− ·0163	− ·0164	− ·0159	− ·0138	− ·0115	− ·0092	− ·0090	− ·0023	− ·0032	− ·0102
6 „	− ·0022	− ·0005	− ·0060	− ·0122	− ·0138	− ·0131	− ·0122	− ·0100	− ·0053	− ·0005	+ ·0014	− ·0012	− ·0063
7 „	+ ·0027	+ ·0035	+ ·0010	− ·0045	− ·0088	− ·0089	− ·0082	− ·0042	+ ·0019	+ ·0028	+ ·0021	+ ·0017	− ·0016
8 „	+ ·0041	+ ·0050	+ ·0053	+ ·0049	± ·0000	− ·0033	− ·0023	+ ·0052	+ ·0071	+ ·0053	+ ·0029	+ ·0041	+ ·0032
9 „	+ ·0049	+ ·0071	+ ·0063	+ ·0082	+ ·0084	+ ·0069	+ ·0053	+ ·0101	+ ·0088	+ ·0087	+ ·0044	+ ·0049	+ ·0070
10 „	+ ·0051	+ ·0074	+ ·0066	+ ·0099	+ ·0116	+ ·0107	+ ·0090	+ ·0119	+ ·0084	+ ·0086	+ ·0040	+ ·0058	+ ·0083
11 „	+ ·0063	+ ·0078	+ ·0062	+ ·0124	+ ·0124	+ ·0113	+ ·0088	+ ·0113	+ ·0076	+ ·0073	+ ·0033	+ ·0070	+ ·0085
Midnight	+ ·0039	+ ·0067	+ ·0051	+ ·0106	+ ·0108	+ ·0089	+ ·0073	+ ·0084	+ ·0037	+ ·0046	+ ·0002	+ ·0040	+ ·0062
1 a.m.	+ ·0001	+ ·0040	+ ·0033	+ ·0055	+ ·0068	+ ·0037	+ ·0033	+ ·0028	− ·0003	+ ·0026	− ·0046	+ ·0011	+ ·0023
Mean†	29·9594	29·6983	29·7228	29·6336	29·8046	29·7615	29·7736	29·7096	29 7863	29·7759	29·7215	29·7233	29·7559

* A correction for non-periodicity has been applied to all the values in this table.

† Of twenty-five hours.

BIDSTON.

JANUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·222	29·720	30·096	30·016	30·322	30 0752
2 „	·218	·717	·099	·017	·321	·0744
3 „	·218	·714	·099	·017	·321	·0738
4 „	·218	·710	·095	·019	·316	·0716
5 „	·217	·703	·092	·016	·314	·0684
6 „	·219	·698	·093	·015	·315	·0680
7 „	·224	·694	·101	·018	·316	·0706
8 „	·234	·701	·110	·028	·326	·0798
9 „	·243	·713	·122	·035	·340	·0906
10 „	·244	·717	·126	·044	·345	·0952
11 „	·244	·720	·127	·048	·348	·0974
Noon	·235	·715	·119	·044	·344	·0914
1 p.m.	·223	·710	·109	·036	·333	·0822
2 „	·218	·702	·103	·030	·327	·0760
3 „	·217	·702	·102	·031	·324	·0752
4 „	·220	·707	·104	·032	·324	·0774
5 „	·222	·712	·105	·040	·326	·0810
6 „	·225	·720	·105	·044	·332	·0852
7 „	·229	·730	·109	·044	·334	·0892
8 „	·232	·737	·112	·046	·338	0930
9 „	·235	·750	·115	·046	·340	·0972
10 „	·235	·745	·113	·045	·342	·0960
11 „	·235	·744	·114	·044	·345	·0964
Midnight	30·233	29 747	30·112	30 042	30·346	30·0960
Mean	30 2275	29·7178	30·1076	30·0332	30·3308	30·0834
1 a.m. after Midnight	30·229	29·747	30·108	30·039	30 345	30·0936

FEBRUARY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·744	29·847	30·236	29·511	29·689	29·8054
2 „	·740	·837	·230	·508	·687	·8004
3 „	·735	·835	·226	·502	·682	·7960
4 „	·729	·830	·221	·495	·681	·7912
5 „	·724	·832	·224	·493	·680	·7906
6 „	·722	·837	·223	·489	·682	·7906
7 „	·722	·846	·223	·484	·688	·7926
8 „	·723	·854	·228	·497	·696	·7996
9 „	·725	·860	·230	·498	·702	·8030
10 „	·725	·864	·229	·499	·702	·8038
11 „	·726	·867	·227	·500	·701	·8042
Noon	·726	·868	·221	·493	·696	·8008
1 p.m.	·723	·864	·210	·488	·686	·7942
2 „	·718	·860	·200	·483	·676	·7874
3 „	·714	·855	·192	·484	·670	·7830
4 „	·714	·856	·191	·486	·666	·7826
5 „	·714	·857	·196	·494	·666	·7854
6 „	·719	·866	·200	·502	·670	·7914
7 „	·721	·869	·203	·508	·665	·7932
8 „	·721	·870	·205	·510	·663	·7938
9 „	·721	·868	·204	·514	·658	·7930
10 „	·722	·869	·205	·514	·656	·7932
11 „	·725	·871	·206	·514	·654	·7940
Midnight	29·728	29·870	30·207	29·509	29·656	29·7940
Mean	29·7242	29·8563	30·2140	29·4990	29·6780	29·7943
1 a.m. after Midnight	29·726	29·867	30·203	29·506	29·655	29·7914

MARCH.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·508	29·731	30·080	29·962	30·070	29·8702
2 „	·503	·727	·077	·957	·069	·8666
3 „	·493	·724	·075	·948	·063	·8606
4 „	486	·718	·069	·944	·061	·8556
5 „	·486	·717	·071	·943	·062	·8558
6 „	·486	·718	·072	·948	·064	·8576
7 „	·490	·722	·075	·953	·070	·8620
8 „	·496	·727	·079	·959	·075	·8672
9 „	·501	·729	·080	·960	·081	·8702
10 „	·503	·730	·077	·959	·082	·8702
11 „	·502	·729	·076	·958	·082	·8694
Noon	·502	·729	·074	·953	·080	·8676
1 p.m.	·498	·723	·068	·948	·070	·8614
2 „	·492	·716	·058	·939	·059	·8528
3 „	·490	·708	·050	·933	·050	·8462
4 „	·488	·707	·047	·925	·045	·8424
5 „	·488	·706	·048	·928	·046	·8432
6 „	·497	·709	·048	·939	·054	·8494
7 „	·506	·713	·049	·945	·058	·8542
8 „	·511	·718	·054	·950	·064	·8594
9 „	·514	·719	·056	·953	·066	·8616
10 „	·515	·718	·057	·952	·068	·8620
11 „	·513	·719	·058	·951	·071	·8624
Midnight	29 511	29·720	30·060	29·951	30·072	29·8628
Mean	29·4991	29·7199	30·0649	29·9483	30·0659	29·8596
1 a.m. after Midnight	29·508	29·720	30·061	29·951	30·072	29 8624

BIDSTON.

APRIL.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·817	29·750	29·820	29·689	29·839	29·7830
2 „	·813	·747	·811	·685	·835	·7782
3 „	·808	·746	·811	·679	·834	·7756
4 „	·805	·744	·807	·676	·831	·7726
5 „	·805	·741	·806	·676	·832	·7720
6 „	·809	·747	·811	·681	·834	·7764
7 „	·816	·753	·814	·686	·839	·7816
8 „	·821	·759	·818	·690	·842	·7860
9 „	·824	·763	·824	·693	·844	·7896
10 „	·824	·760	·820	·692	·844	·7880
11 „	·823	·757	·814	·688	·845	·7854
Noon	·818	·753	·812	·685	·842	·7820
1 p.m.	·818	·747	·808	·680	·839	·7784
2 „	·814	·739	·803	·677	·839	·7744
3 „	·809	·730	·798	·674	·837	·7696
4 „	·810	·727	·796	·675	·837	·7690
5 „	·810	·728	·797	·681	·841	·7714
6 „	·816	·731	·801	·687	·844	·7758
7 „	·823	·735	·809	·694	·852	·7826
8 „	·832	·745	·818	·705	·863	·7926
9 „	·836	·752	·825	·711	·870	·7988
10 „	·837	·756	·829	·714	·873	·8018
11 „	·837	·765	·832	·714	·876	·8044
Midnight	29·831	29·761	29·832	29·714	29·874	29·8024
Mean	29·8190	29·7473	29·8132	29·6894	29·8461	29·7830
1 a.m. after Midnight	29·828	29·762	29·833	29·709	29·873	29·8010

MAY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·164	29·877	29·729	30·021	30·113	29·9808
2 „	·163	·874	·724	·019	·109	·9778
3 „	·162	·868	·717	·008	·102	·9714
4 „	·160	·865	·711	·005	·099	·9680
5 „	·161	·865	·708	·007	·096	·9674
6 „	·165	·867	·711	·011	·103	·9714
7 „	·169	·869	·713	·014	·104	·9738
8 „	·173	·870	·716	·018	·108	·9770
9 „	·175	·869	·718	·018	·107	·9774
10 „	·177	·865	·715	·019	·109	·9770
11 „	·168	·861	·715	·015	·105	·9728
Noon	·164	·857	·714	·013	·102	·9700
1 p.m.	·159	·853	·715	·011	·098	·9672
2 „	·153	·849	·716	·007	·094	·9638
3 „	·147	·846	·714	30·001	·089	·9594
4 „	·144	·842	·714	29·997	·086	·9566
5 „	·144	·841	·715	·997	·086	·9566
6 „	·148	·841	·721	·995	·086	·9582
7 „	·151	·844	·727	29·998	·091	·9622
8 „	·158	·848	·736	30·002	·098	·9684
9 „	·165	·850	·744	·010	·110	·9758
10 „	·172	·855	·744	·011	·114	·9792
11 „	·175	·853	·745	·010	·114	·9794
Midnight	30·176	29·851	29·745	30·006	30·112	29·9780
Mean	30·1622	29·8575	29·7220	30·0089	30·1015	29·9704
1 a.m. after Midnight	30·173	29·846	29·742	30·001	30·108	29·9740

JUNE.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·977	29·951	29·908	29·717	29·929	29·8964
2 „	·971	·944	·904	·715	·923	·8914
3 „	·965	·945	·902	·711	·916	·8878
4 „	·963	·945	·900	·710	·914	·8864
5 „	·961	·946	·899	·709	·912	·8854
6 „	·966	·951	·901	·715	·911	8888
7 „	·969	·959	·904	·718	·913	·8926
8 „	·973	·965	·908	·723	·917	·8972
9 „	·974	·966	·908	·723	·919	·8980
10 „	·973	·967	·904	·722	·917	·8966
11 „	·972	·967	·903	·720	·914	·8952
Noon	·971	·964	·899	·717	·911	·8924
1 p.m.	·968	·961	·893	·716	·911	·8898
2 „	·965	·956	·891	·717	·906	·8870
3 „	·961	·952	·886	·717	·905	·8842
4 „	·954	·949	·883	·715	·906	·8814
5 „	·956	·948	·884	·719	·899	·8812
6 „	·957	·950	·885	·715	·901	·8816
7 „	·962	·955	·887	·718	·904	·8852
8 „	·965	·960	·896	·722	·908	·8902
9 „	·971	·968	·903	·727	·914	·8966
10 „	·973	·972	·908	·729	·919	·9002
11 „	·971	·973	·909	·730	·918	·9002
Midnight	29·968	29·974	29·909	29·728	29·915	29 8988
Mean	29·9669	29·9578	29·8989	29·7189	29·9126	29·8910
1 a.m. after Midnight	29·965	29·975	29·907	29·722	29·911	29·8960

BIDSTON.

JULY.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	30·047	29·854	30·035	29·741	29·847	29·9048
2 „	·042	·848	·031	·733	·839	·8986
3 „	·036	·843	·027	·726	·833	·8930
4 „	·034	·840	·025	·723	·832	·8908
5 „	·034	·840	·028	·723	·832	·8914
6 „	·036	·841	·031	·721	·834	·8926
7 „	·040	·842	·035	·728	·841	·8972
8 „	·043	·847	·040	·733	·846	·9018
9 „	·044	·851	·040	·734	·848	·9034
10 „	·044	·851	·043	·735	·848	·9042
11 „	·046	·853	·043	·738	·847	·9054
Noon	·048	·852	·043	·739	·846	·9056
1 p.m.	·048	·848	·043	·742	·844	·9050
2 „	·046	·850	·041	·740	·843	·9040
3 „	·044	·848	·037	·738	·841	·9016
4 „	·042	·844	·033	·737	·837	·8986
5 „	·040	·841	·030	·738	·836	·8970
6 „	·041	·840	·025	·739	·836	·8962
7 „	·042	·840	·033	·738	·838	·8982
8 „	·044	·845	·038	·743	·840	·9020
9 „	·047	·851	·048	·748	·848	·9084
10 „	·048	·856	·048	·749	·852	·9106
11 „	·046	·854	·050	·749	·852	·9102
Midnight	30·045	29·851	30·051	29·745	29·849	29·9082
Mean	30·0428	29·8471	30·0374	29·7367	29·8420	29·9012
1 a.m. after Midnight	30·042	29·847	30·048	29·743	29·847	29·9054

AUGUST.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·906	29·816	29·735	29·748	30·023	29·8456
2 „	·901	·811	·731	·743	·018	·8408
3 „	·894	·806	·724	·736	·015	·8350
4 „	·889	·801	·719	·733	·012	·8308
5 „	·889	·796	·717	·733	·012	·8294
6 „	·888	·799	·718	·733	·015	·8306
7 „	·891	·803	·723	·741	·020	·8356
8 „	·896	·806	·727	·750	·027	·8412
9 „	·899	·808	·728	·752	·031	·8436
10 „	·900	·807	·728	·753	·030	·8436
11 „	·900	·806	·726	·756	·027	·8430
Noon	·899	·808	·725	·755	·023	·8420
1 p.m.	·900	·809	·720	·758	·016	·8406
2 „	·896	·810	·716	·756	·012	·8380
3 „	·889	·809	·710	·755	30·005	·8336
4 „	·887	·808	·708	·753	29·998	·8308
5 „	·883	·809	·706	·753	29·998	·8298
6 „	·884	·809	·708	·753	30·001	·8310
7 „	·888	·814	·714	·756	·007	·8358
8 „	·895	·818	·720	·762	·018	·8426
9 „	·900	·825	·723	·768	·025	·8482
10 „	·901	·825	·726	·773	·032	·8514
11 „	·902	·825	·726	·775	·035	·8526
Midnight	29·901	29·822	29·725	29·776	30·036	29·8520
Mean	29·8949	29·8104	29·7210	29·7530	30·0182	29·8395
1 a.m. after Midnight	29·897	29·817	29·719	29·766	30·037	29·8472

SEPTEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·747	30·048	29·929	29·902	29·935	29·9122
2 „	·742	·044	·921	·898	·932	·9074
3 „	·738	·041	·914	·894	·927	·9028
4 „	·732	·037	·910	·889	·923	·8982
5 „	·731	·039	·899	·888	·923	·8960
6 „	·733	·044	·906	·895	·928	·9012
7 „	·737	·056	·914	·905	·933	·9090
8 „	·744	·064	·921	·914	·940	·9166
9 „	·750	·068	·925	·919	·945	·9214
10 „	·752	·070	·924	·919	·945	·9220
11 „	·753	·067	·929	·919	·943	·9222
Noon	·753	·066	·929	·912	·942	·9204
1 p.m.	·754	·063	·925	·905	·940	·9174
2 „	·751	·058	·922	·902	·938	·9142
3 „	·749	·052	·920	·897	·936	·9108
4 „	·749	·052	·918	·891	·934	·9088
5 „	·751	·050	·924	·893	·943	·9122
6 „	·758	·052	·928	·896	·948	·9164
7 „	·759	·055	·933	·901	·948	·9192
8 „	·763	·062	·941	·905	·955	·9252
9 „	·762	·063	·941	·904	·953	·9246
10 „	·760	·064	·941	·902	·953	·9240
11 „	·759	·063	·939	·897	·949	·9214
Midnight	29·754	30·060	29·933	29·892	29·946	29·9170
Mean	29·7492	30·0558	29·9244	29·9016	29·9400	29·9142
1 a.m. after Midnight	29·751	30·055	29·930	29·886	29·943	29·9130

BIDSTON.

OCTOBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·875	29·917	29·700	30·112	29·932	29·9072
2 „	·875	·912	·695	·105	·928	·9030
3 „	·870	·907	·683	·097	·923	·8960
4 „	·867	·906	·686	·093	·920	·8944
5 „	·866	·907	·682	·095	·919	·8938
6 „	·867	·914	·683	·093	·919	·8952
7 „	·873	·925	·686	·100	·922	·9012
8 „	·878	·934	·692	·110	·932	·9092
9 „	·883	·941	·692	·112	·937	·9130
10 „	·882	·940	·693	·109	·935	·9118
11 „	·881	·940	·693	·109	·936	·9118
Noon	·880	·935	·690	·111	·931	·9094
1 p.m.	·875	·927	·683	·105	·924	·9028
2 „	·874	·922	·679	·103	·917	·8990
3 „	·874	·915	·680	·101	·911	·8962
4 „	·876	·914	·681	·101	·910	·8964
5 „	·881	·916	·687	·105	·912	·9002
6 „	·889	·921	·695	·115	·919	·9078
7 „	·894	·923	·700	·120	·922	·9118
8 „	·897	·921	·703	·124	·923	·9136
9 „	·901	·922	·704	·127	·926	·9160
10 „	·901	·919	·704	·130	·927	·9162
11 „	·901	·922	·705	·133	·927	·9176
Midnight	29·902	29·920	29·705	30·128	29·927	29·9164
Mean	29·8818	29·9217	29·6917	30·1099	29·9241	29·9058
1 a.m. after Midnight	29·901	29·918	29·702	30·125	29·924	29·9140

NOVEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·855	29·546	29·793	30·260	29·891	29·8690
2 „	·855	·546	·790	·253	·884	·8656
3 „	·851	·545	·787	·252	·873	·8616
4 „	·850	·546	·785	·246	·868	·8590
5 „	·847	·550	·788	·242	·865	·8584
6 „	·846	·553	·791	·238	·867	·8590
7 „	·847	·559	·794	·243	·873	·8632
8 „	·850	·567	·803	·249	·880	·8698
9 „	·852	·574	·806	·250	·888	·8740
10 „	·851	·573	·808	·251	·888	·8742
11 „	·848	·569	·805	·250	·888	·8720
Noon	·842	·558	·800	·242	·877	·8638
1 p.m.	·835	·547	·794	·235	·870	·8562
2 „	·829	·538	·789	·229	·868	·8506
3 „	·824	·529	·787	·228	·872	·8480
4 „	·823	·523	·790	·233	·878	·8494
5 „	·825	·523	·796	·237	·886	·8534
6 „	·826	·519	·802	·243	·892	·8564
7 „	·827	·518	·802	·247	·898	·8584
8 „	·828	·516	·800	·247	·899	·8580
9 „	·828	·510	·801	·251	·902	·8584
10 „	·828	·511	·799	·251	·905	·8588
11 „	·825	·508	·797	·251	·904	·8570
Midnight	29·824	29·507	29·793	30·250	29·902	29·8552
Mean	29·8382	29·5390	29·7958	30·2449	29·8841	29·8604
1 a.m. after Midnight	26·822	29·504	29·788	30·249	29·894	29·8514

DECEMBER.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·396	29·942	29·704	30·268	29·849	29·8318
2 „	·395	·943	·699	·267	·843	·8294
3 „	·396	·945	·694	·265	·839	·8278
4 „	·390	·942	·692	·262	·835	·8242
5 „	·387	·938	·686	·259	837	·8214
6 „	·384	·940	·683	·259	·837	·8206
7 „	·383	·945	·688	·259	·843	·8236
8 „	·390	·953	·699	·261	·852	8310
9 „	·393	965	·707	·265	·864	·8388
10 „	·394	·971	·708	·268	·869	·8420
11 „	·396	·971	·708	·266	·868	·8418
Noon	·389	·968	·703	·256	·863	·8358
1 p.m.	·381	·964	·696	·246	·856	·8286
2 „	·374	·965	·694	·240	·847	·8240
3 „	·374	·964	·694	·238	·847	·8234
4 „	·375	·967	·693	·234	·850	·8238
5 „	·375	·971	·692	·237	·853	·8256
6 „	·376	·974	·694	·239	·856	·8278
7 „	·378	·977	·695	·243	·860	·8306
8 „	·382	·979	·696	·247	·862	·8332
9 „	·383	·983	·697	·250	·858	·8342
10 „	·385	·983	·697	·255	·858	·8356
11 „	·386	·983	·695	·257	·858	·8358
Midnight	29·385	29·985	29·694	30·257	29·859	29·8360
Mean	29·3853	29·9633	29·6962	30·2541	29 8526	29·8303
1 a.m. after Midnight	29·381	29·985	29·690	30·258	29·854	29·8336

BIDSTON.

YEAR.

——	1876.	1877.	1878.	1879.	1880.	Mean of 5 years.
1 a.m.	29·8548	29·8333	29·8971	29·9123	29·9533	29·8901
2 „	·8515	·8292	·8927	·9083	·9490	·8861
3 „	·8472	·8266	·8883	·9029	·9440	·8818
4 „	·8436	·8237	·8850	·8996	·9410	·8786
5 „	·8423	·8228	·8833	·8987	·9403	·8775
6 „	·8434	·8258	·8853	·8998	·9424	·8793
7 „	·8468	·8311	·8889	·9041	·9468	·8836
8 „	·8518	·8373	·8951	·9110	·9534	·8897
9 „	·8553	·8423	·8982	·9133	·9588	·8936
10 „	·8558	·8429	·8979	·9142	·9595	·8941
11 „	·8549	·8423	·8972	·9139	·9587	·8934
Noon	·8523	·8394	·8941	·9100	·9548	·8901
1 p.m.	·8485	·8347	·8887	·9057	·9489	·8853
2 „	·8442	·8304	·8843	·9019	·9439	·8809
3 „	·8410	·8258	·8808	·8998	·9406	·8776
4 „	·8402	·8247	·8798	·8983	·9393	·8764
5 „	·8408	·8252	·8817	·9018	·9410	·8781
6 „	·8447	·8277	·8843	·9056	·9449	·8814
7 „	·8483	·8311	·8884	·9093	·9481	·8851
8 „	·8523	·8349	·8933	·9136	·9526	·8893
9 „	·8553	·8384	·8968	·9174	·9558	·8927
10 „	·8564	·8394	·8977	·9188	·9583	·8941
11 „	·8563	·8400	·8980	·9188	·9586	·8943
Midnight	29·8548	29·8390	29·8972	29·9165	29·9578	29·8931
Mean	29·8493	29·8328	29·8906	29·9082	29·9497	29·8861
1 a.m. after Midnight	29·8519	29·8369	29·8943	29·9129	29·9553	29·8903

TABLE OF DIURNAL RANGE.*

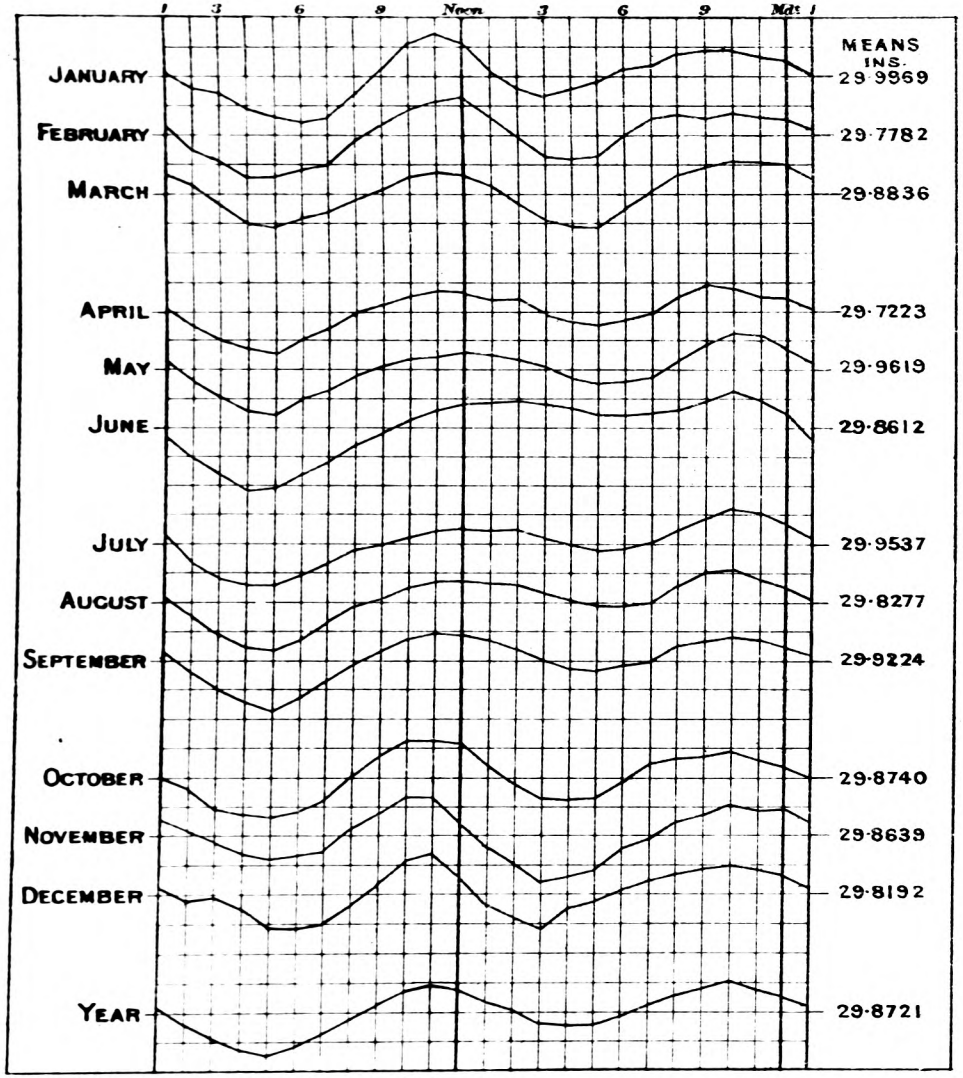
——	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Year.
1 a.m.	+·0006	+·0042	+·0066	+·0083	+·0069	+·0050	+·0037	+·0066	−·0015	+·0044	+·0002	+·0023	+·0039
2 „	−·0009	−·0002	+·0033	+·0028	+·0042	±·0000	−·0025	+·0017	−·0063	−·0001	−·0024	−·0002	−·0001
3 „	−·0023	−·0040	−·0024	−·0006	−·0019	−·0036	−·0081	−·0041	−·0110	−·0074	−·0057	−·0018	−·0044
4 „	−·0053	−·0083	−·0070	−·0043	−·0051	−·0050	−·0104	−·0084	−·0156	−·0093	−·0076	−·0055	−·0076
5 „	−·0092	−·0083	−·0065	−·0057	−·0054	−·0059	−·0098	−·0099	−·0178	−·0102	−·0074	−·0084	−·0087
6 „	−·0104	−·0077	−·0044	−·0020	−·0011	−·0025	−·0086	−·0087	−·0127	−·0090	−·0061	−·0093	−·0069
7 „	−·0086	−·0051	+·0003	+·0024	+·0016	+·0013	−·0040	−·0038	−·0049	−·0033	−·0012	−·0063	−·0027
8 „	−·0001	+·0025	+·0059	+·0061	+·0051	+·0059	+·0005	+·0017	+·0027	+·0044	+·0061	+·0010	+·0034
9 „	+·0099	+·0065	+·0092	+·0089	+·0057	+·0067	+·0021	+·0041	+·0074	+·0079	+·0111	+·0087	+·0073
10 „	+·0137	+·0078	+·0095	+·0066	+·0056	+·0053	+·0029	+·0040	+·0080	+·0064	+·0120	+·0118	+·0078
11 „	+·0151	+·0088	+·0090	+·0032	+·0017	+·0040	+·0041	+·0033	+·0082	+·0062	+·0105	+·0116	+·0071
Noon	+·0084	+·0060	+·0076	−·0009	−·0008	+·0012	+·0042	+·0023	+·0063	+·0035	+·0031	+·0055	+·0038
1 p.m.	−·0016	±·0000	+·0017	−·0053	−·0033	−·0014	+·0036	+·0008	+·0033	−·0034	−·0038	−·0018	−·0010
2 „	−·0086	−·0062	−·0066	−·0101	−·0064	−·0042	+·0026	−·0019	+·0001	−·0075	−·0087	−·0065	−·0054
3 „	−·0101	−·0100	−·0128	−·0156	−·0105	−·0070	+·0001	−·0063	−·0034	−·0106	−·0105	−·0072	−·0087
4 „	−·0087	−·0098	−·0163	−·0170	−·0130	−·0097	−·0029	−·0092	−·0054	−·0106	−·0084	−·0068	−·0099
5 „	−·0059	−·0065	−·0152	−·0153	−·0127	−·0099	−·0045	−·0103	−·0020	−·0071	−·0037	−·0051	−·0082
6 „	−·0025	+·0001	−·0087	−·0117	−·0109	−·0095	−·0053	−·0091	+·0021	+·0002	+·0001	−·0030	−·0049
7 „	+·0008	+·0025	−·0035	−·0056	−·0066	−·0059	−·0034	−·0044	+·0049	+·0039	+·0028	−·0003	−·0012
8 „	+·0038	+·0037	+·0020	+·0036	−·0001	−·0009	+·0004	+·0023	+·0109	+·0054	+·0031	+·0023	+·0029
9 „	+·0072	+·0035	+·0045	+·0091	+·0076	+·0055	+·0068	+·0079	+·0102	+·0076	+·0042	+·0032	+·0063
10 „	+·0053	+·0043	+·0052	+·0113	+·0113	+·0092	+·0090	+·0110	+·0096	+·0075	+·0054	+·0045	+·0077
11 „	+·0049	+·0056	+·0060	+·0132	+·0117	+·0092	+·0085	+·0121	+·0070	+·0086	+·0043	+·0046	+·0079
Midnight	+·0037	+·0062	+·0067	+·0104	+·0106	+·0078	+·0065	+·0115	+·0025	+·0071	+·0032	+·0048	+·0067
1 a.m.	+·0006	+·0042	+·0066	+·0083	+·0069	+·0050	+·0037	+·0066	−·0015	+·0044	+·0002	+·0023	+·0039
Mean†	30·0838	29·7942	29·8597	29·7837	29·9705	29·8912	29·9014	29·8398	29·9141	29·9062	29·8600	29·8304	29·8863

* A correction for non-periodicity has been applied to all the values in this table.

† Of twenty-five hours.

MEAN DIURNAL VARIATION OF THE BAROMETER AT VALENCIA 1876-1880.

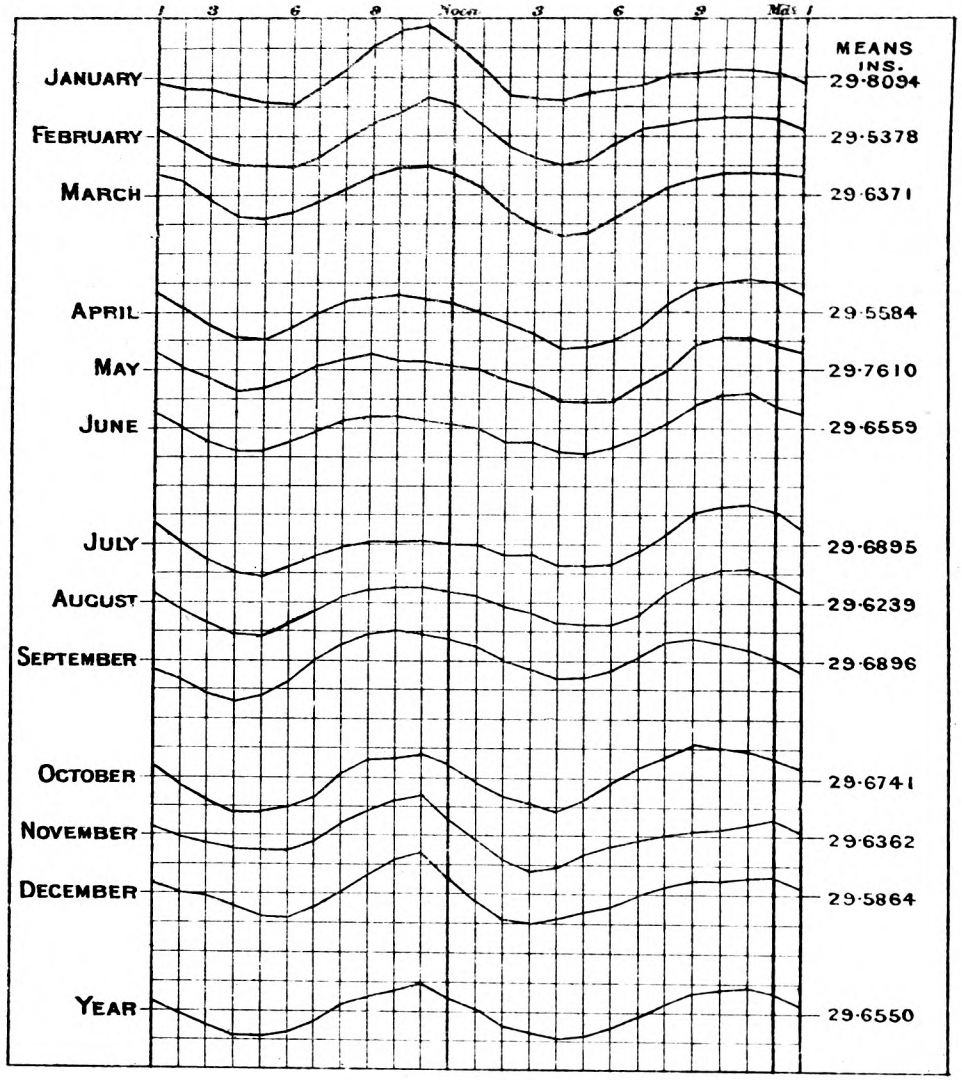
Greenwich Time.



Barometer Scale, each division - 0·01 inch

MEAN DIURNAL VARIATION OF THE BAROMETER AT ARMAGH. 1876-1880.

Greenwich Time.

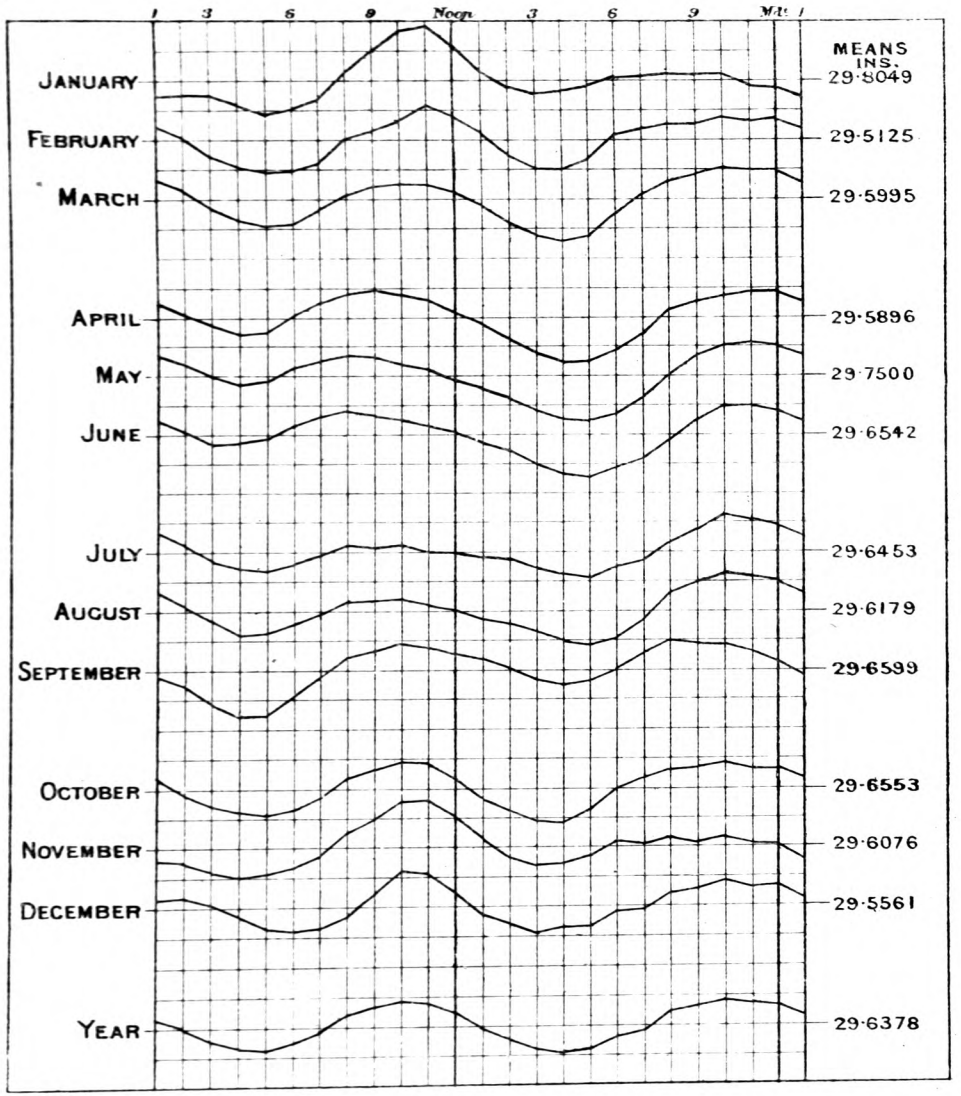


Barometer Scale, each division - 0·01 inch

DANIELL LITH. 26 BEDFORD ST. COVENT GARDEN

MEAN DIURNAL VARIATION OF THE BAROMETER AT GLASGOW 1876-1880.

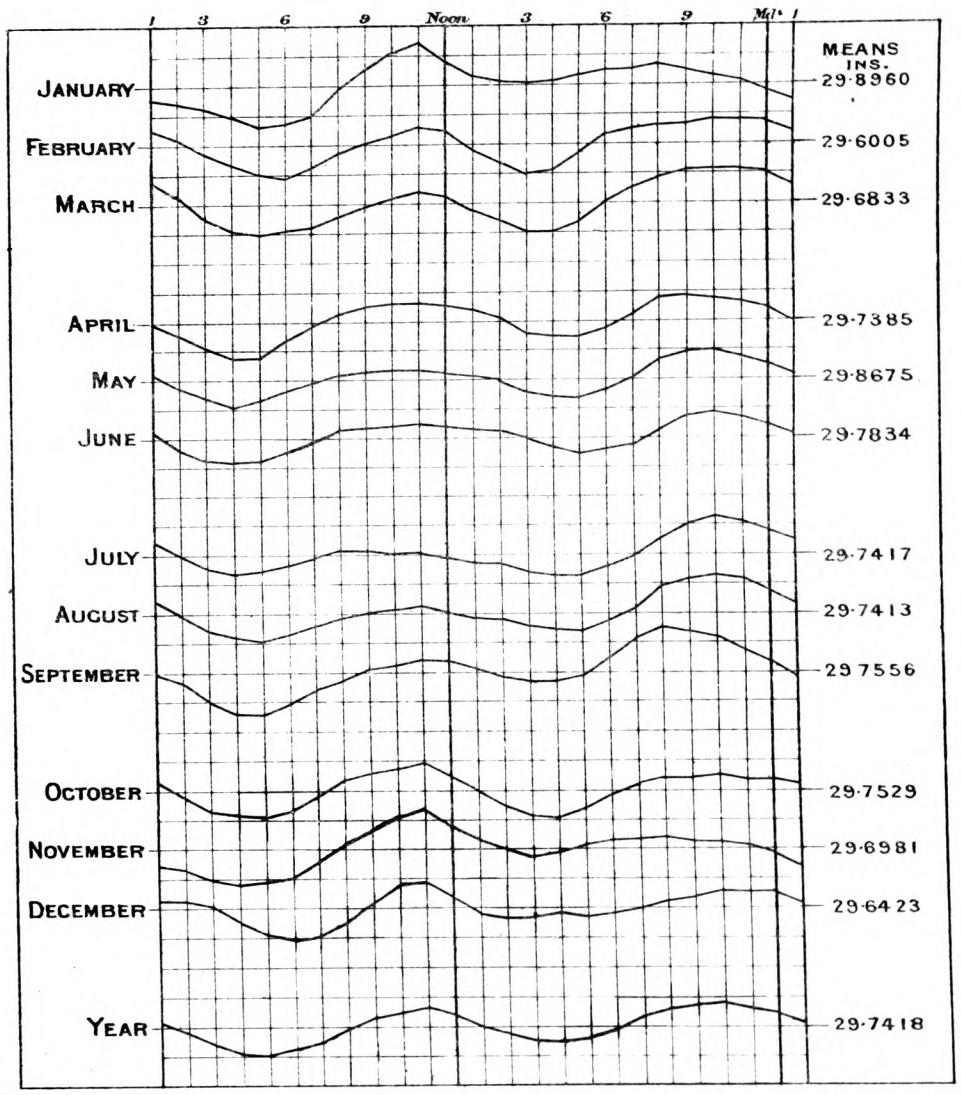
Greenwich Time.



Barometer Scale, each division = 0·01 inch

MEAN DIURNAL VARIATION OF THE BAROMETER AT ABERDEEN 1876-1880.

Greenwich Time.

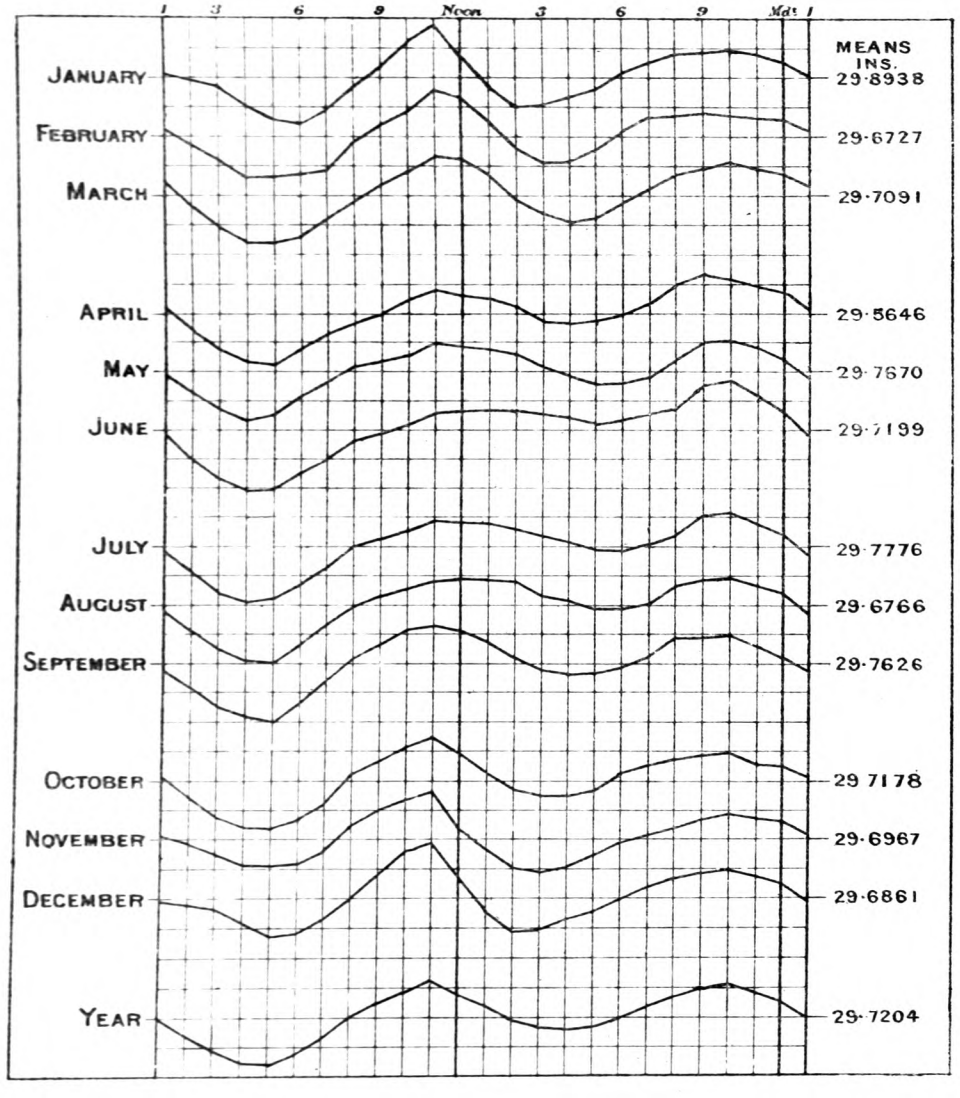


Barometer Scale, each division = 0·01 inch

DANCER PRINTED LITH. 22 BEDFORD ST. COVENT GARDEN. 1881.2/89

MEAN DIURNAL VARIATION OF THE BAROMETER AT FALMOUTH 1876-1880.

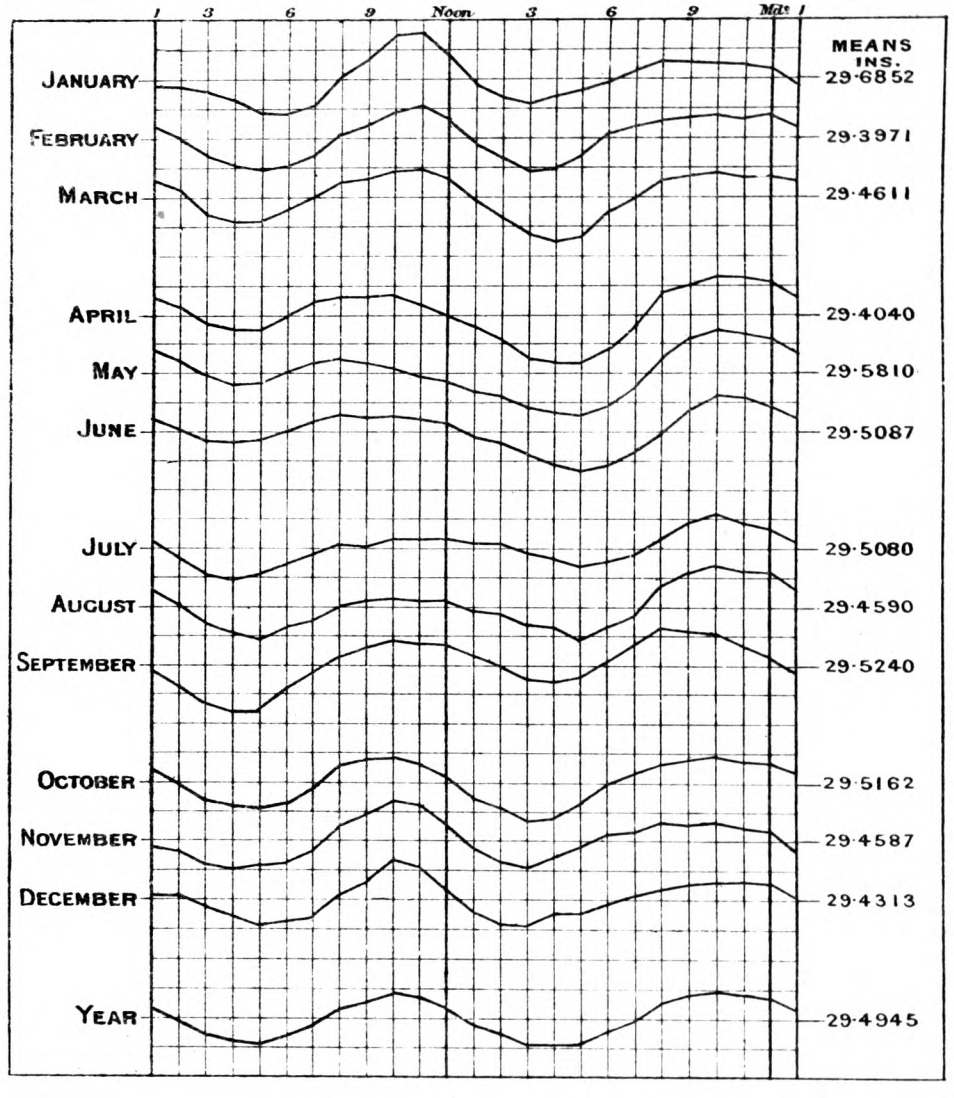
Greenwich Time.



Barometer Scale, each division - 0·01 inch

MEAN DIURNAL VARIATION OF THE BAROMETER AT STONYHURST 1876-1880.

Greenwich Time.

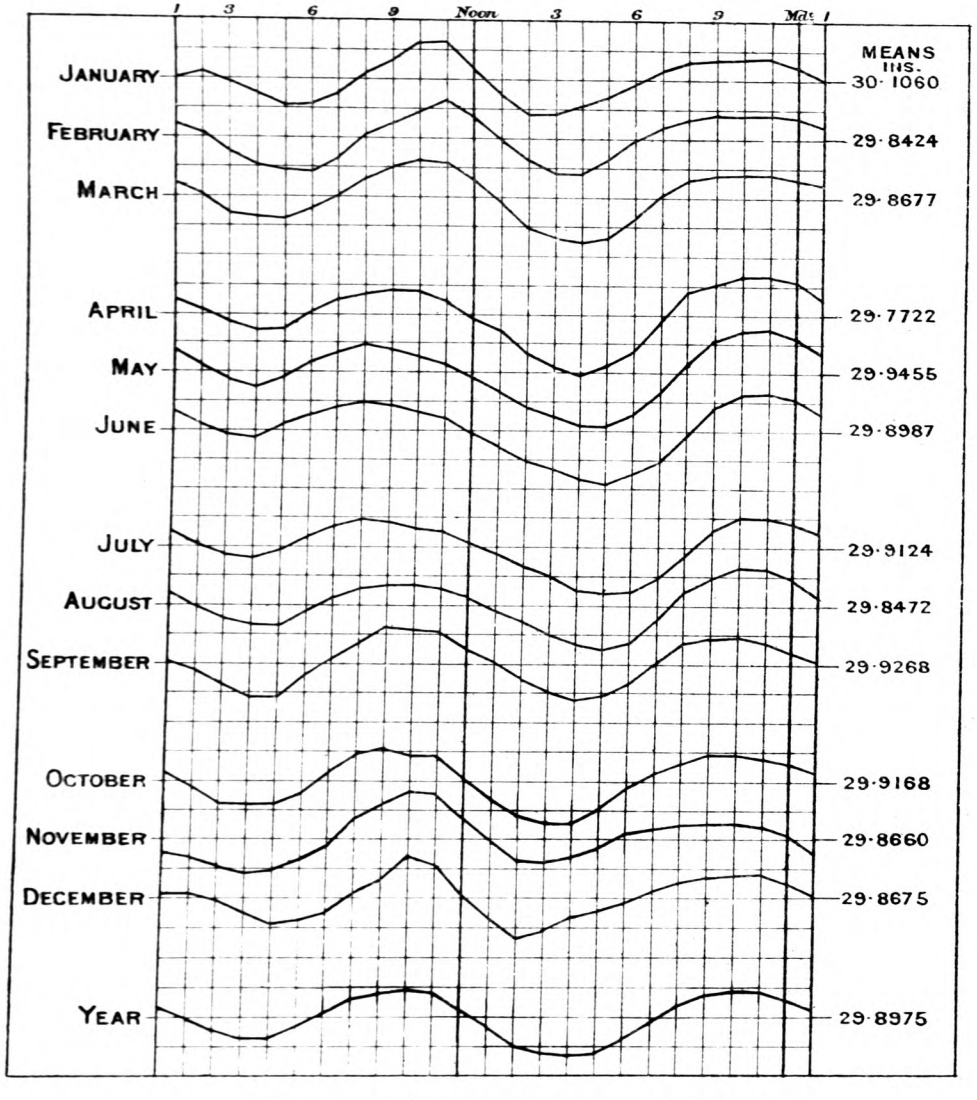


Barometer Scale, each division - 0·01 inch

DANGERFIELD LITH 22 BEDFORD ST 1881? 2/80.

MEAN DIURNAL VARIATION OF THE BAROMETER AT KEW 1876-1880.

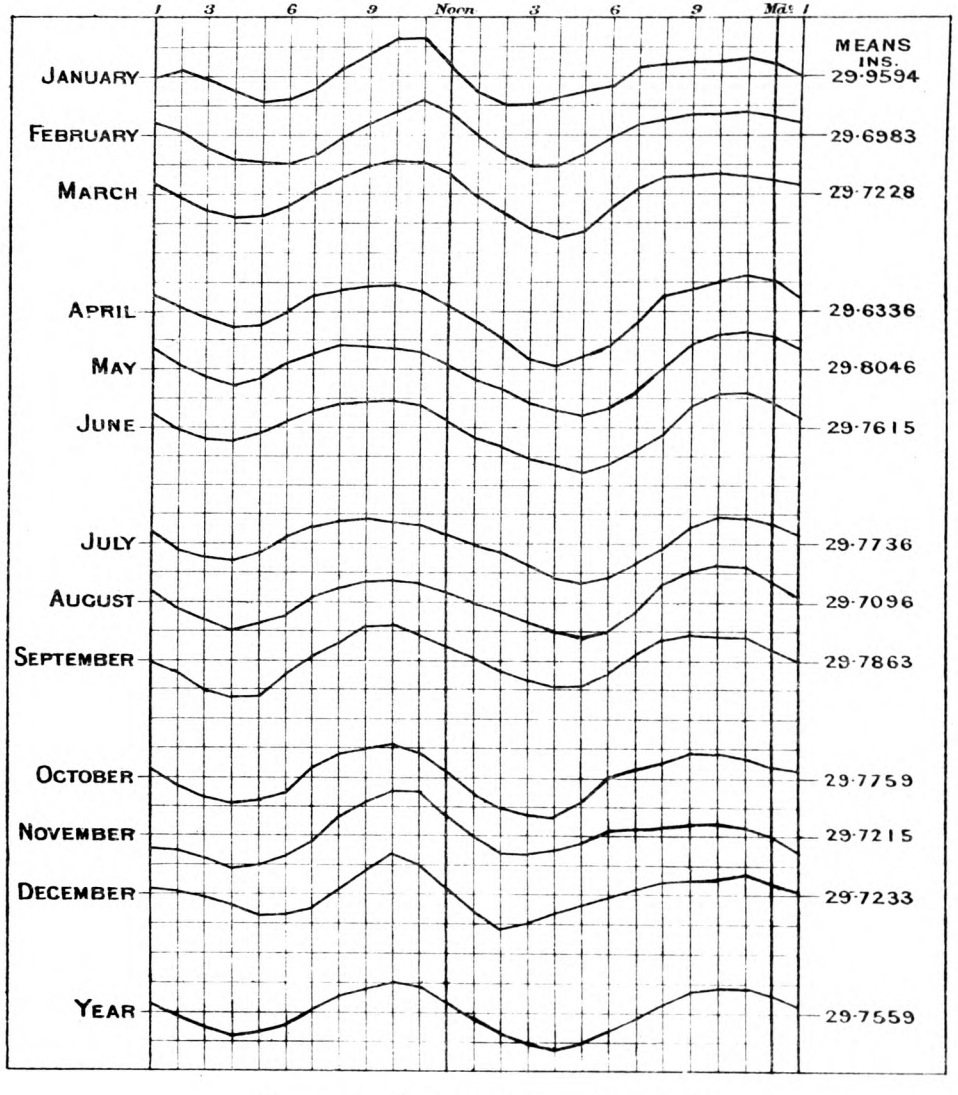
Greenwich Time.



Barometer Scale, each division = 0·01 inch.

MEAN DIURNAL VARIATION OF THE BAROMETER AT GREENWICH 1876-1880.

Greenwich Time.



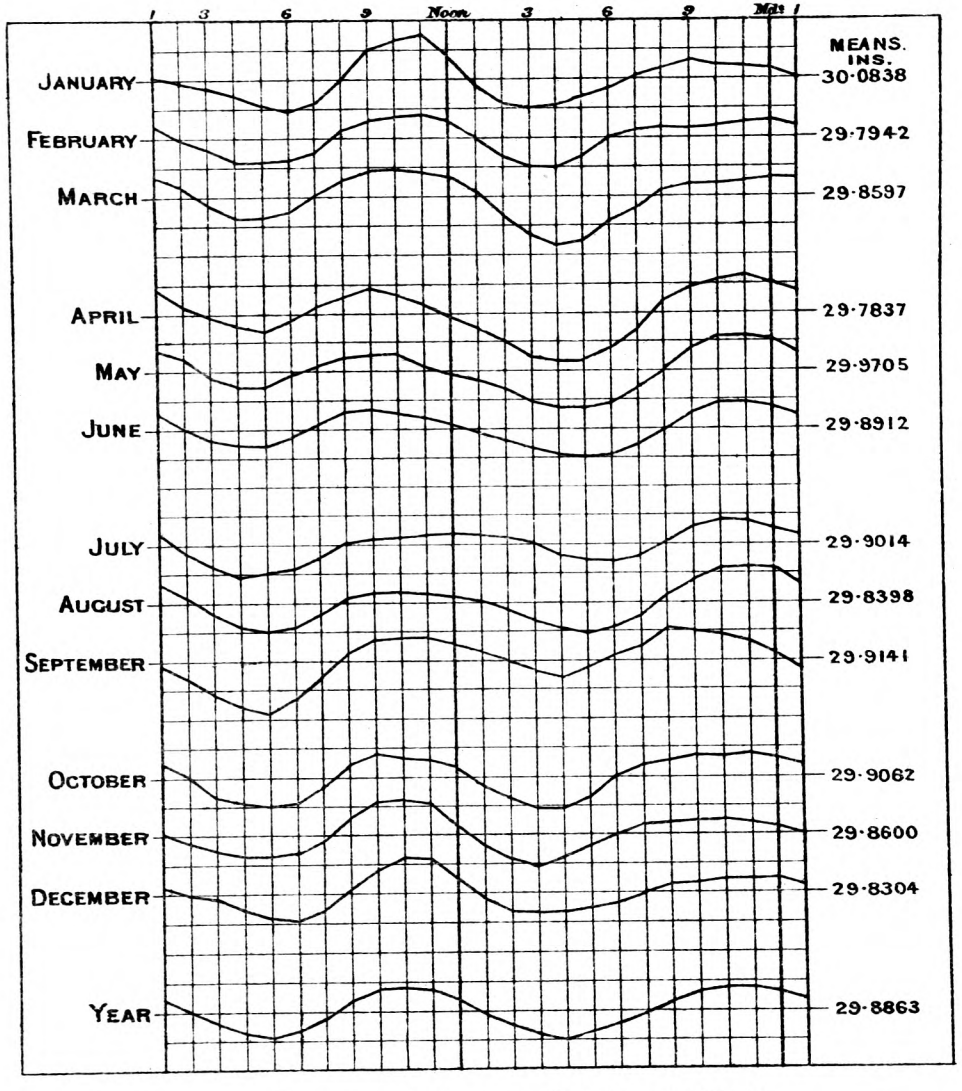
Barometer Scale, each division = 0·01 inch.

DANCE FIELD LITH 22, BEDFORD ST COVENT GARDEN. 1881 2,88

F

MEAN DIURNAL VARIATION OF THE BAROMETER AT BIDSTON 1876-1880.

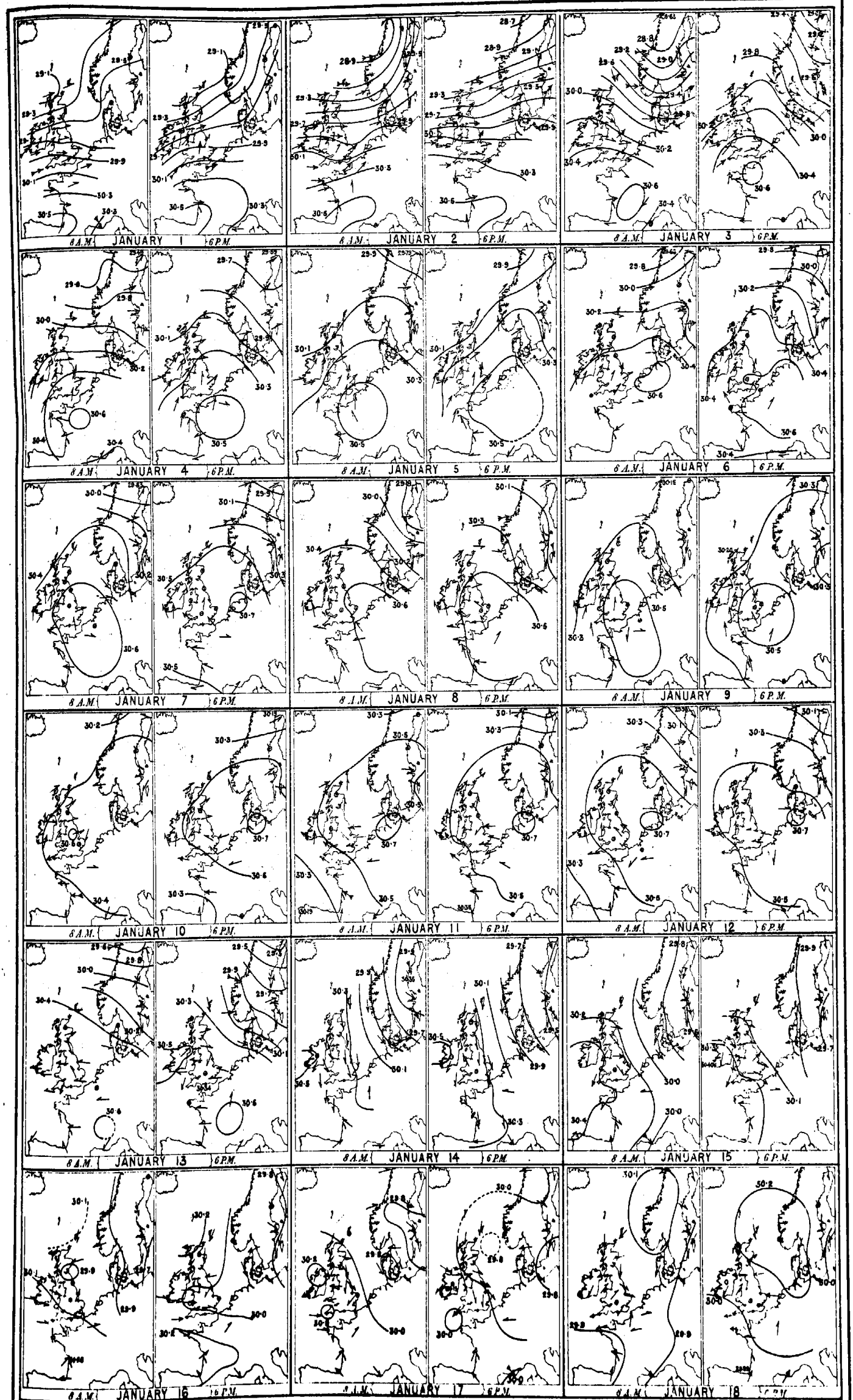
Greenwich Time.



Barometer Scale, each division = 0·01 inch.

DANGERFIELD LITH 22, BEDFORD ST COVENT GARDEN. 18050 2/83.

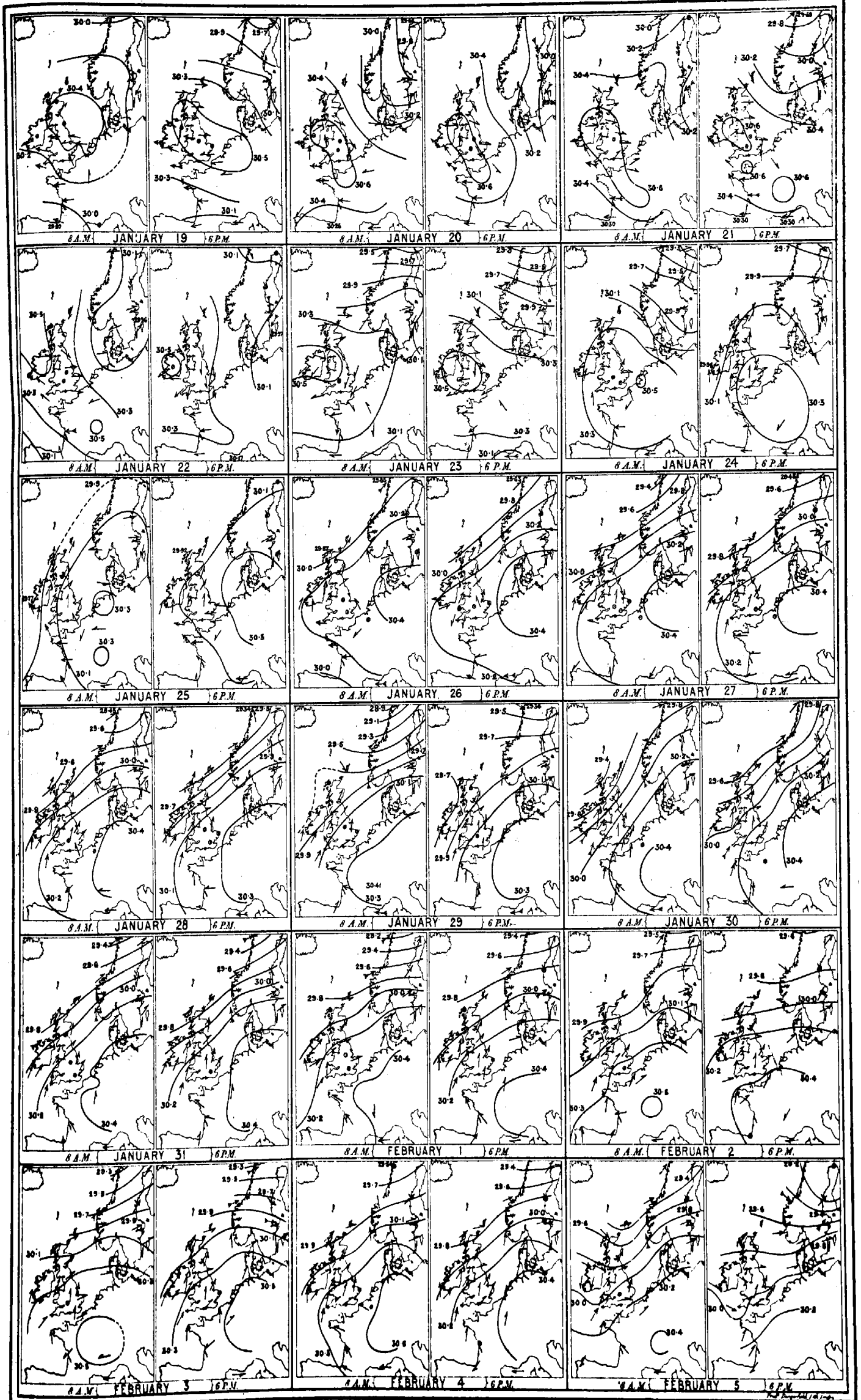
JANUARY, 1880.



Wind Force – ⊙ – Calm —— Light to Moderate - - - → Fresh to Strong ← - - → Gale Arrows fly with the Wind

JANUARY & FEBRUARY, 1880.

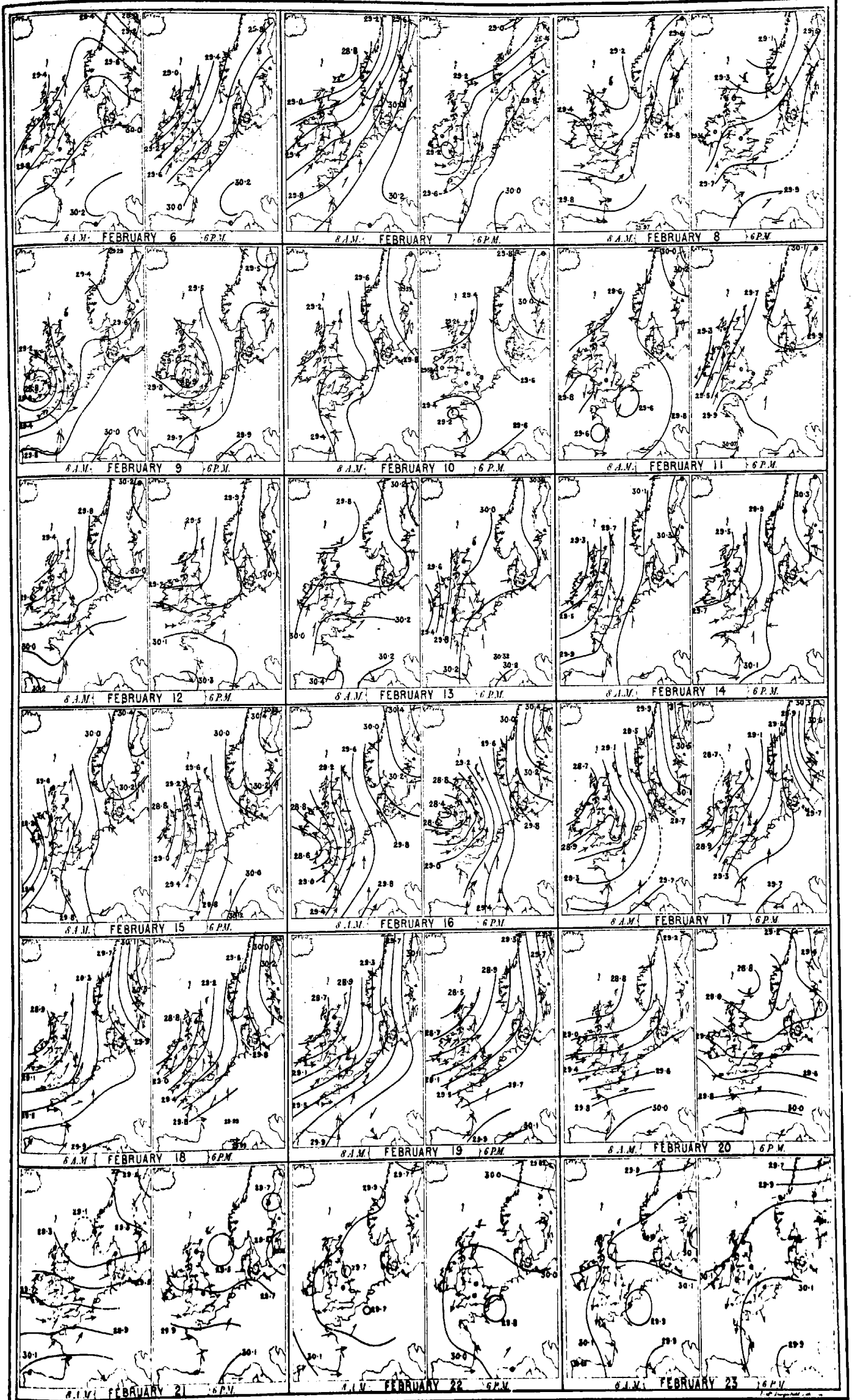
Chart Plate 2.



Wind Force— ⊙ = Calm —→ Light to Moderate —→ Fresh to Strong. ←→ Gale. Arrows fly with the Wind.

17642.

FEBRUARY, 1880.

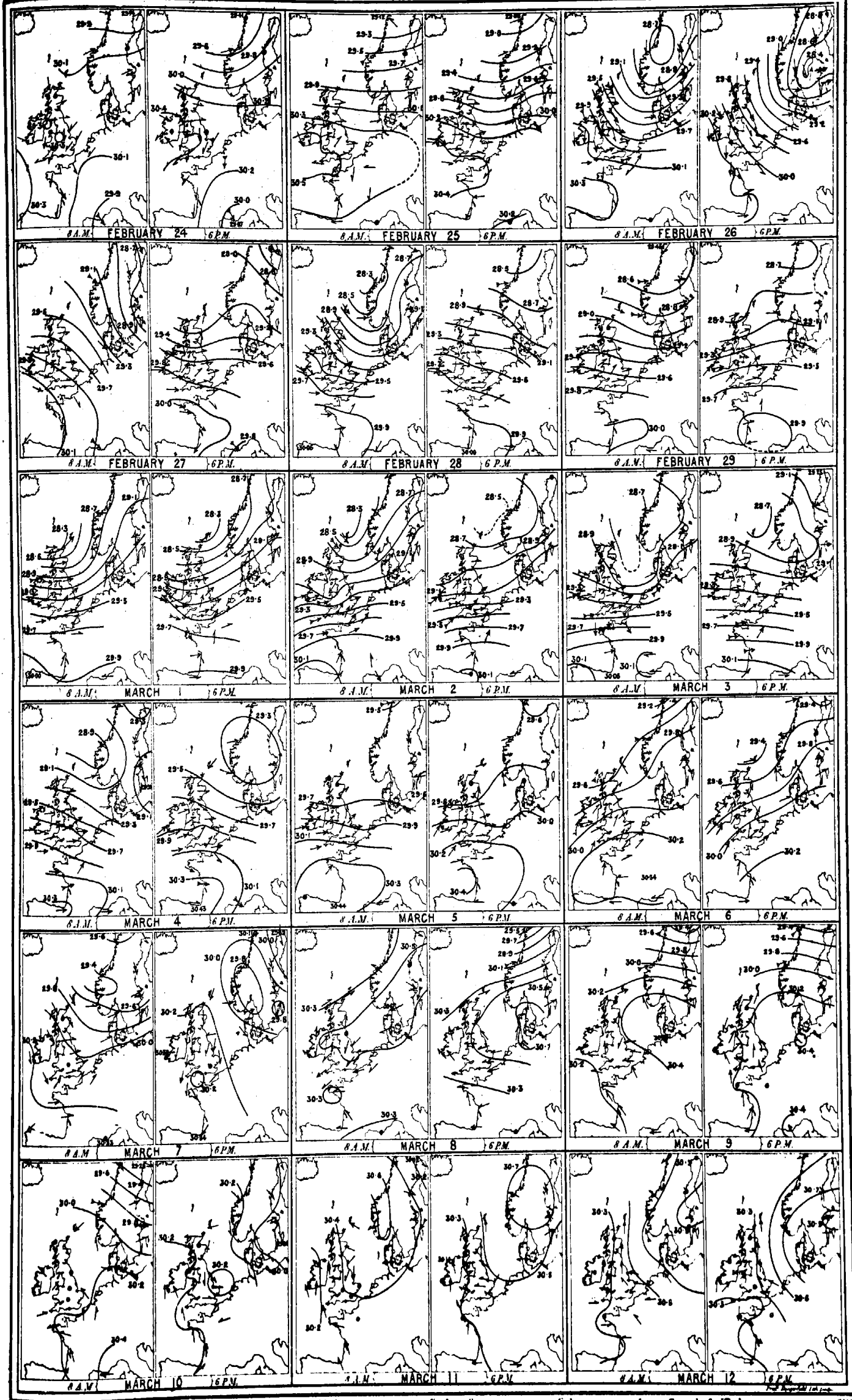


Wind Force ⊙ = Calm ——— = Light to Moderate ——— = Fresh to Strong - - - = Gale Arrows fly with the Wind

17642

FEBRUARY & MARCH, 1880.

Chart Plate. 4



Wind Force — ⊙ = Calm ——→ Light to Moderate. - - - → Fresh to Strong. ←——→ Gale. Arrows fly with the Wind.

MARCH, 1880.

Chart Plate. 5

8 A.M. MARCH 13 6 P.M.

8 A.M. MARCH 14 6 P.M.

8 A.M. MARCH 15 6 P.M.

8 A.M. MARCH 16 6 P.M.

8 A.M. MARCH 17 6 P.M.

8 A.M. MARCH 18 6 P.M.

8 A.M. MARCH 19 6 P.M.

8 A.M. MARCH 20 6 P.M.

8 A.M. MARCH 21 6 P.M.

8 A.M. MARCH 22 6 P.M.

8 A.M. MARCH 23 6 P.M.

8 A.M. MARCH 24 6 P.M.

8 A.M. MARCH 25 6 P.M.

8 A.M. MARCH 26 6 P.M.

8 A.M. MARCH 27 6 P.M.

8 A.M. MARCH 28 6 P.M.

8 A.M. MARCH 29 6 P.M.

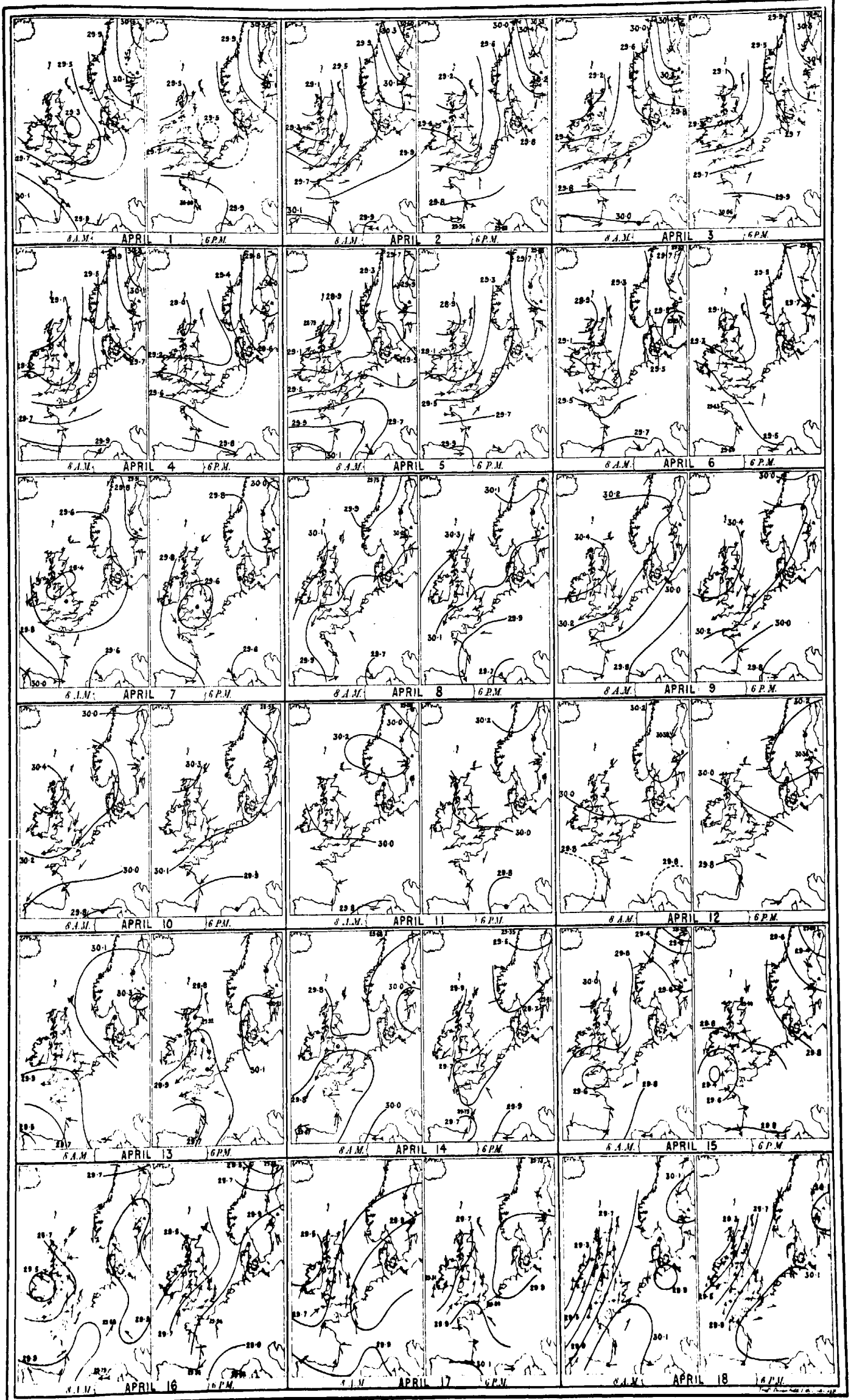
8 A.M. MARCH 30 6 P.M.

8 A.M. MARCH 31 6 P.M.

Wind Force— ⊙ = Calm. ——→ Light to Moderate. ——→ Fresh to Strong. ——→ Gale. Arrows fly with the Wind.

17643

APRIL, 1866.

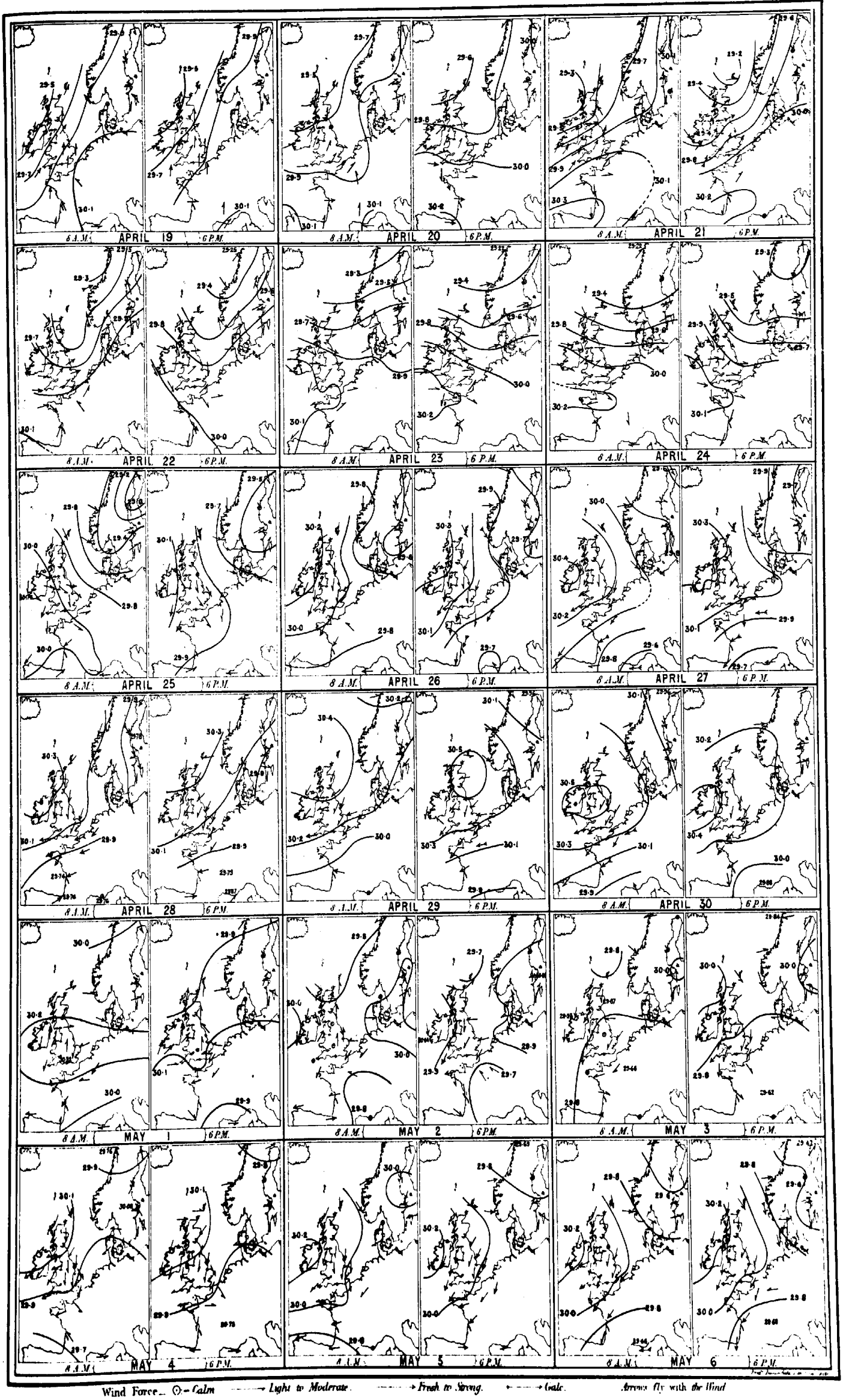


Wind Force. ⊙ - Calm ——— Light to Moderate ——— Fresh to Strong. Gale Arrows fly with the Wind.

Judd & Co Lith 73 & 75 Farringdon Rd & Doctors' Commons

APRIL & MAY, 1880.

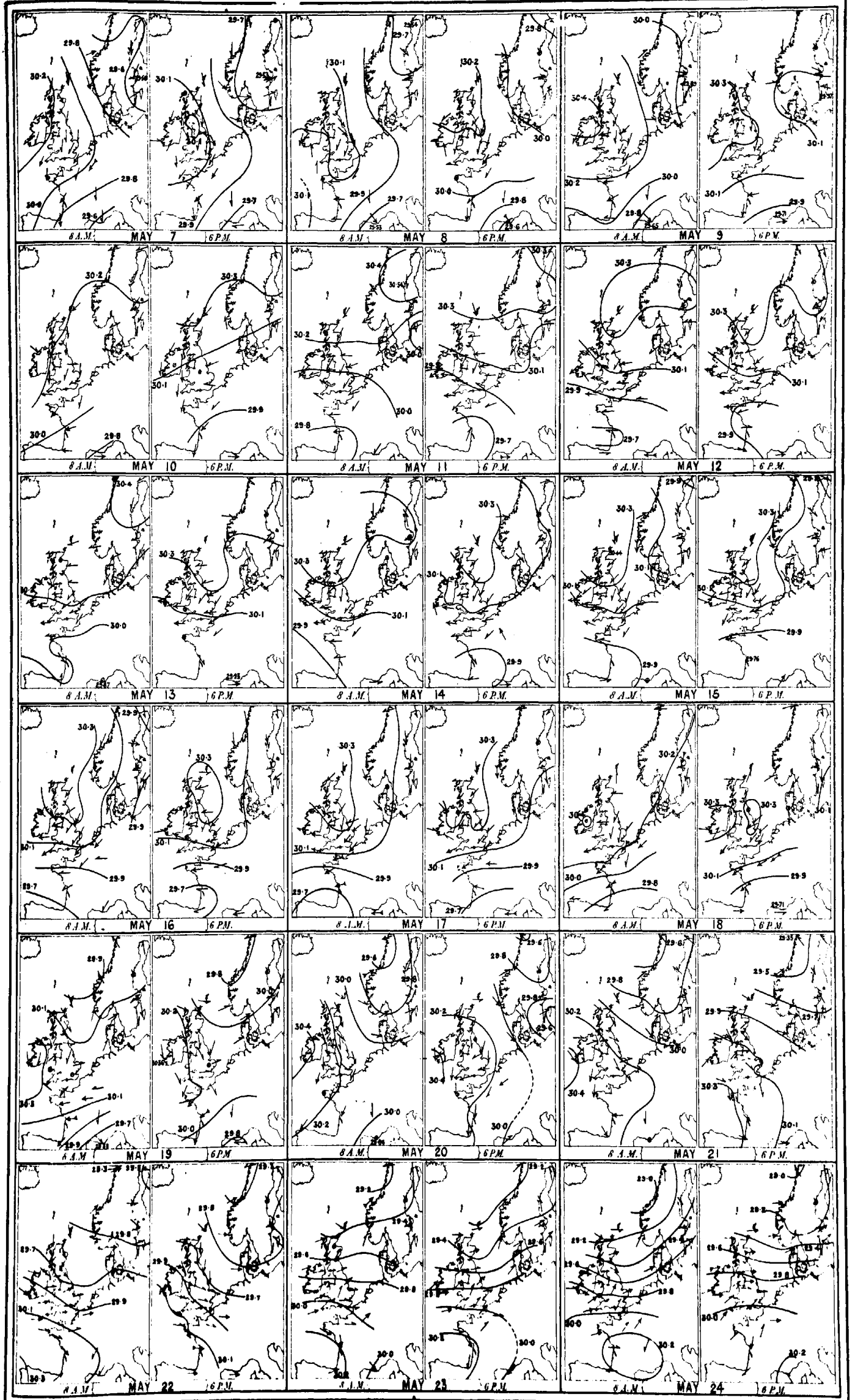
Chart Plate 2.



Wind Force. ⊙ – Calm ——→ Light to Moderate. ——→ Fresh to Strong. ←——→ Gale. Arrows fly with the Wind

Judd & Co. Lith. 73 & 75 Farringdon Rd. & Doctors Commons

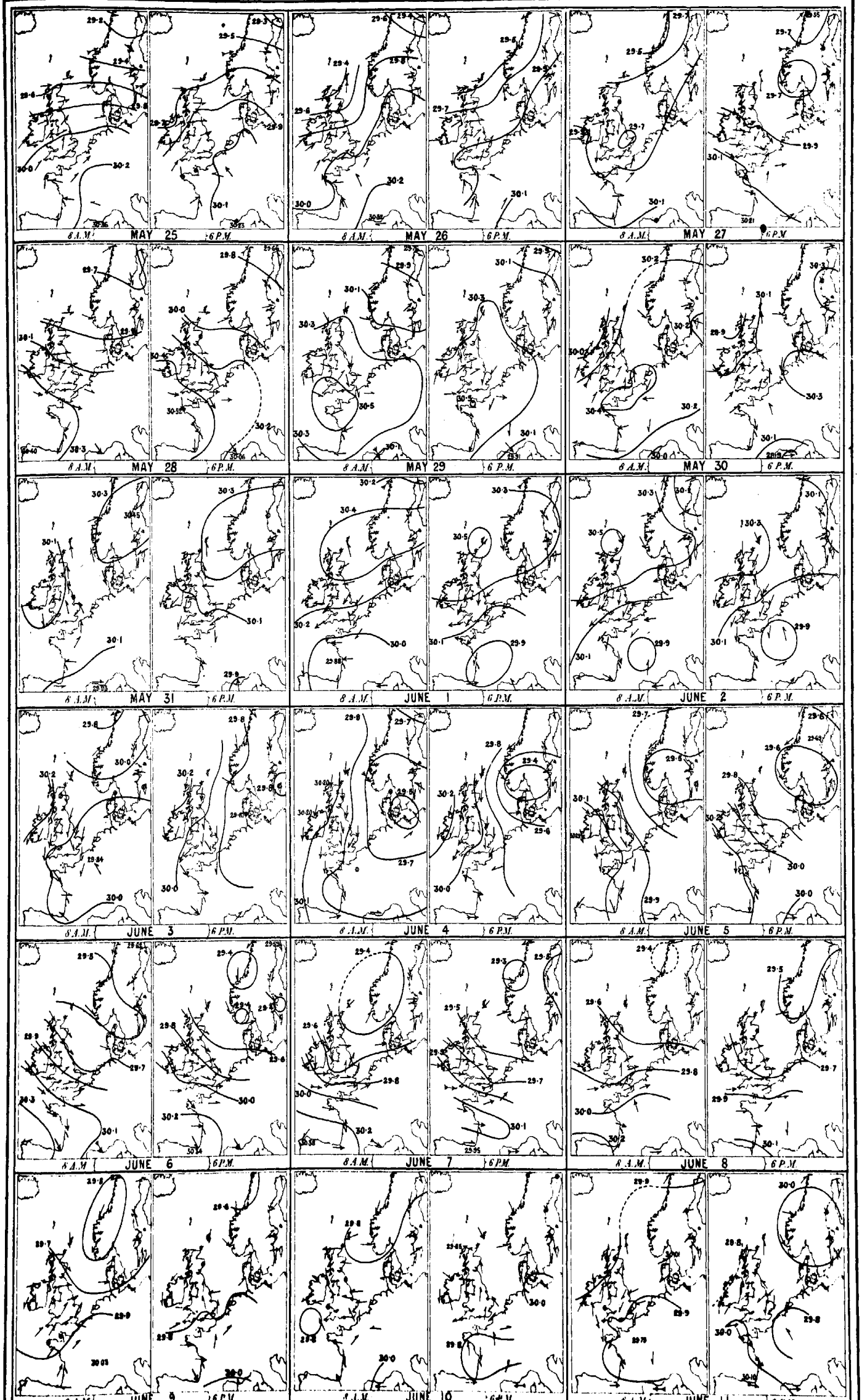
MAY, 1880.



Wind Force ⊙ = Calm · = Light to Moderate — = Fresh to Strong ▸ = Gale Arrows fly with the Wind

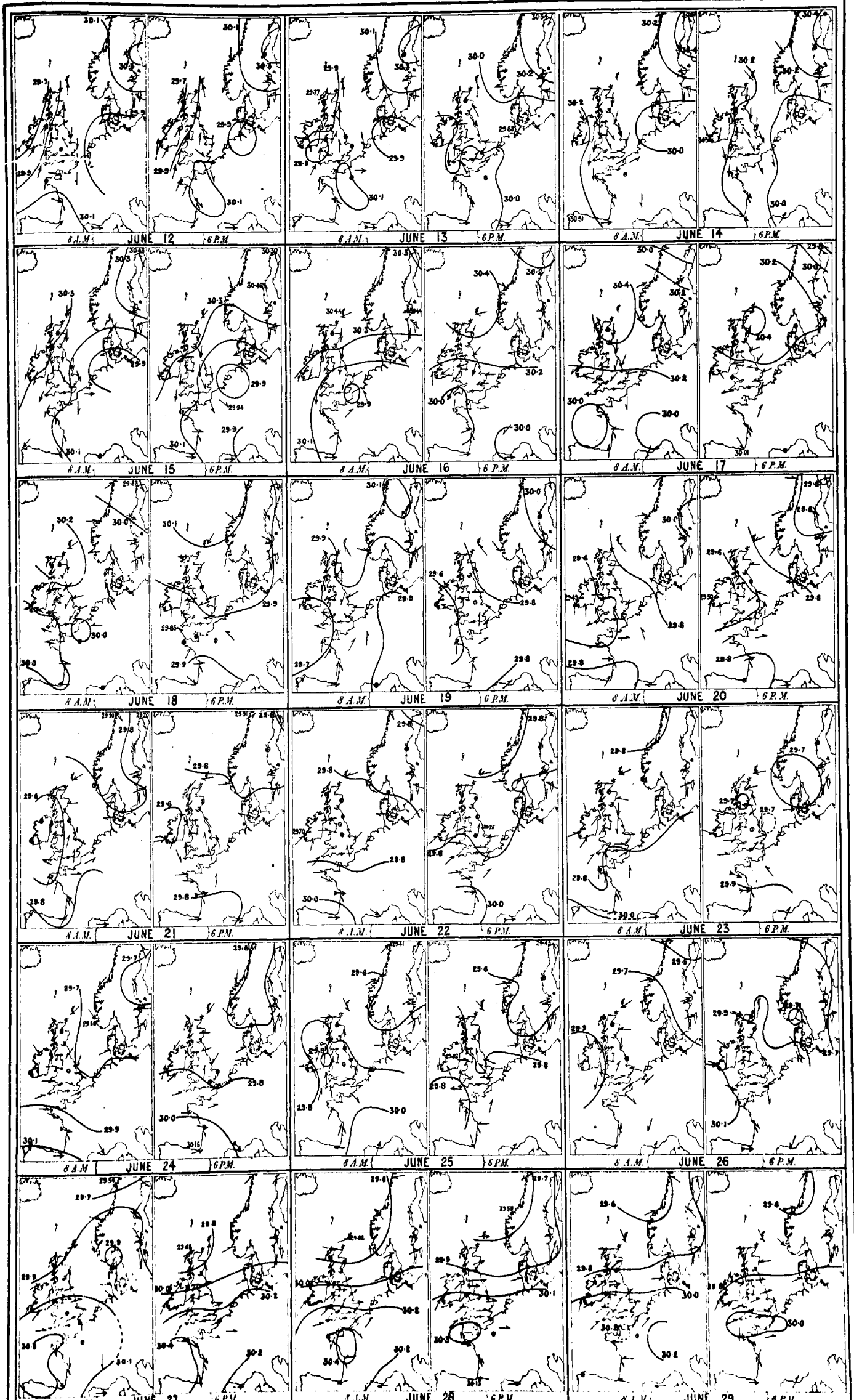
MAY & JUNE, 1880.

Chart Plate 9.



Wind Force — ⊙ — Calm ——→ Light to Moderate. ——→ Fresh to Strong. ←——→ Gale. Arrows fly with the Wind.

Judd & Co Ltd Lith 73 & 75 Farringdon Rd & Doctors Commons

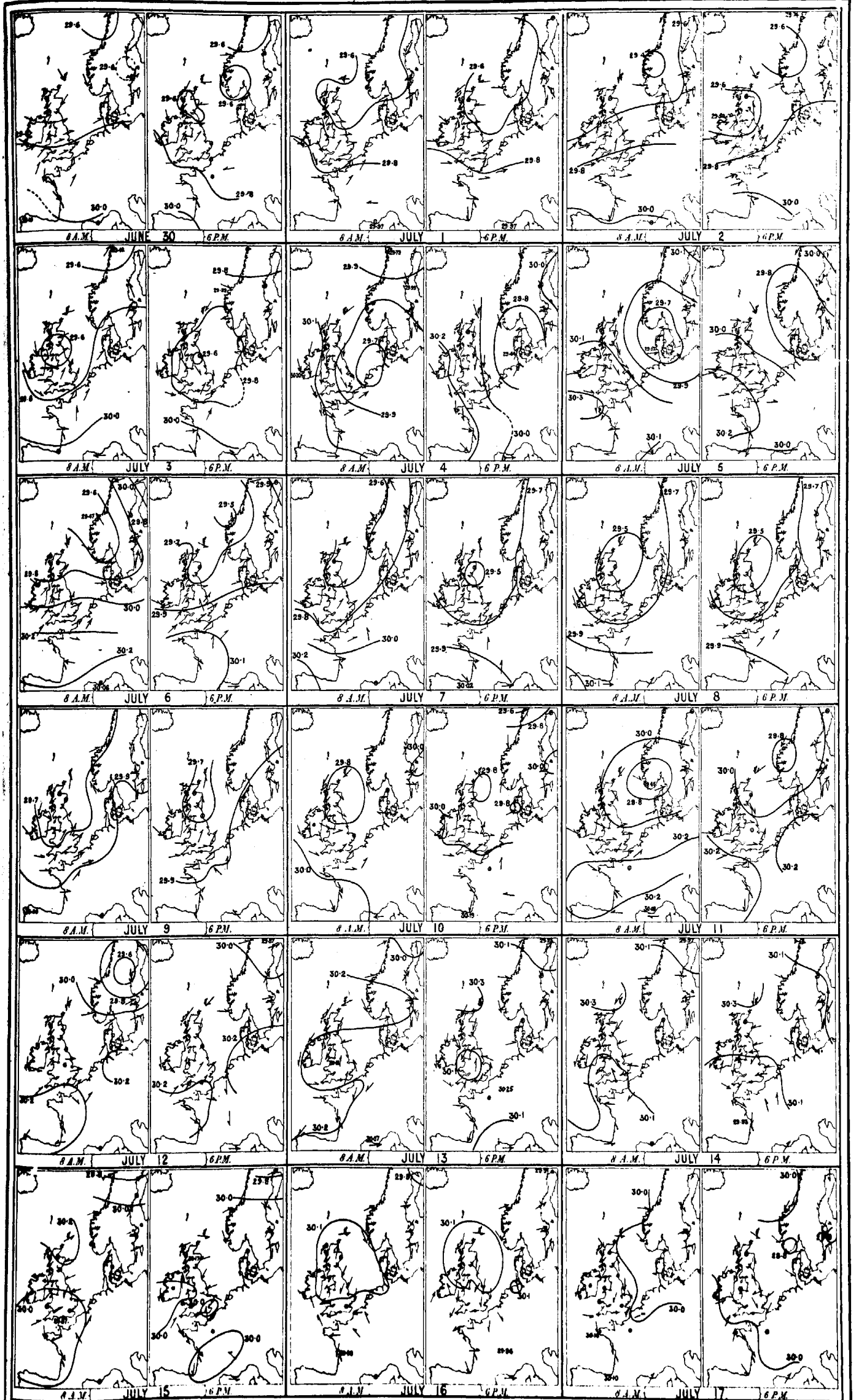


Wind Force. ⊙ – Calm ------ Light to Moderate ——— Fresh to Strong. ——— Gale Arrows fly with the Wind.

Judd & Co. Ltd. Lith 73 & 75, Farringdon Rd. & Doctors Commons.

JUNE & JULY, 1880.

Chart Plate 11.

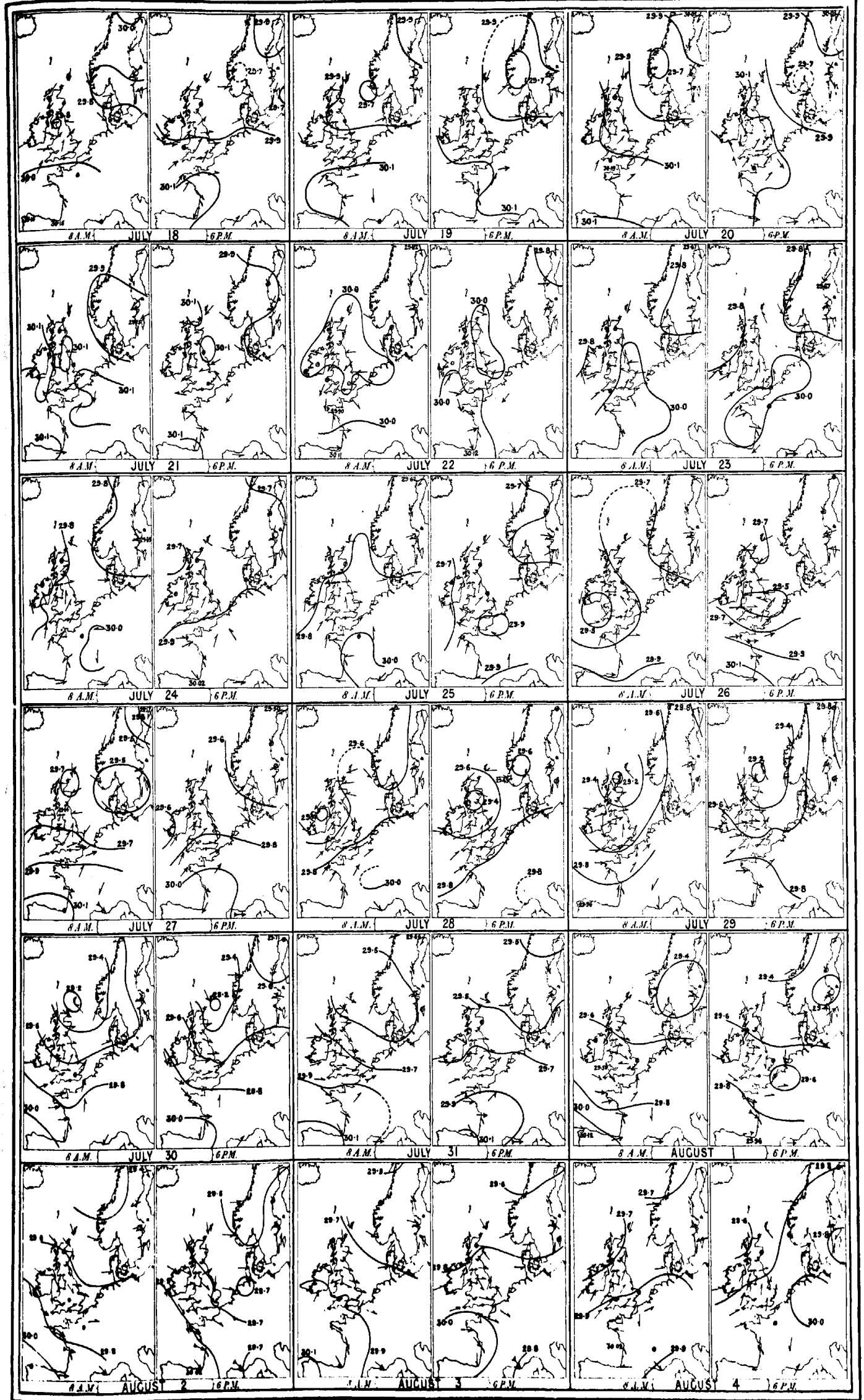


Wind Force . ⊙ – Calm Light to Moderate Fresh to Strong + Gale Arrows fly with the Wind

Judd & Smith London 1208 3 91

JULY & AUGUST, 1880.

Chart Plate 12.



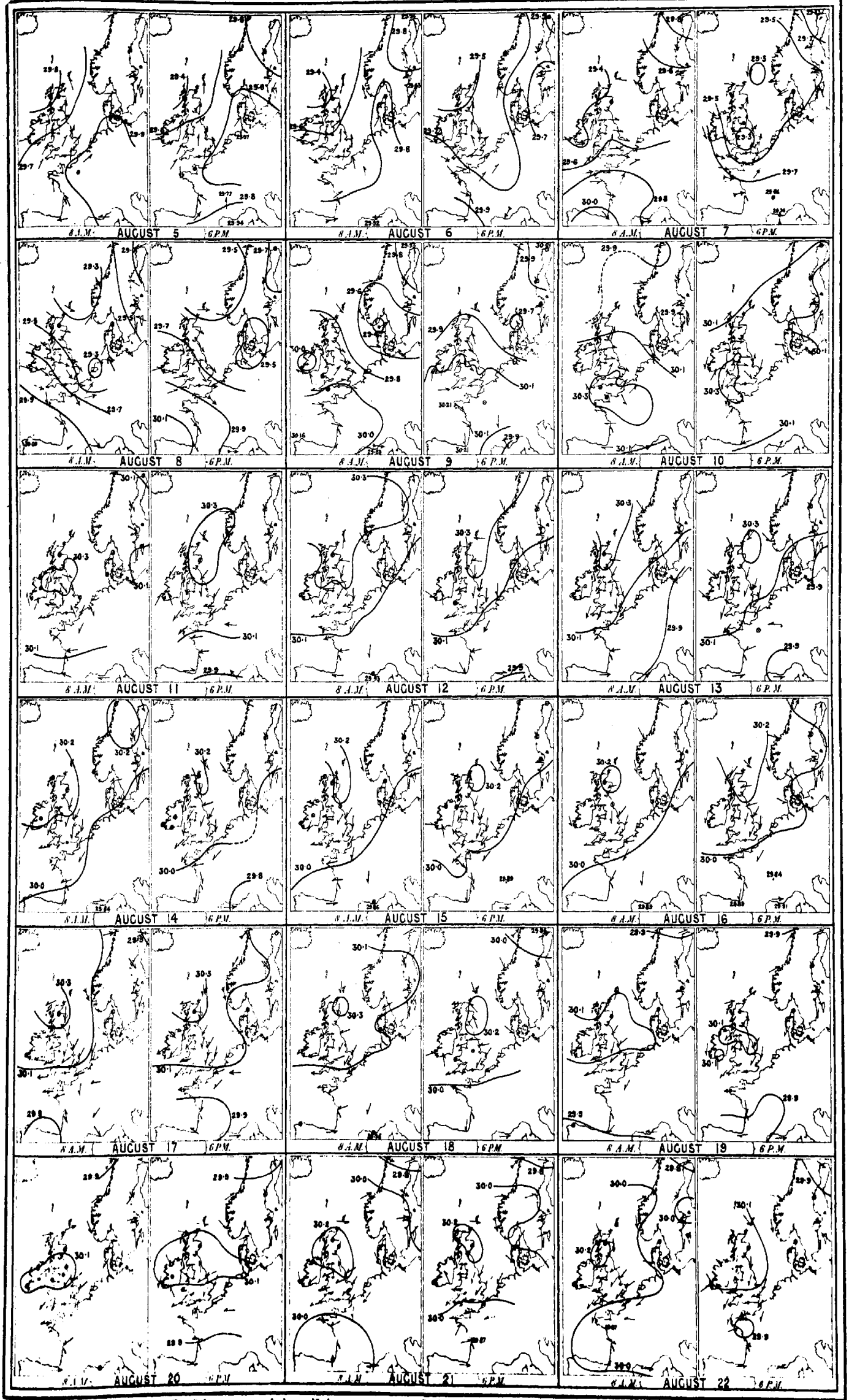
Wind Force — ⊙ = Calm ——→ Light to Moderate - - - - → Fresh to Strong ·—·—→ Gale

Arrows fly with the Wind

Judd & Co. Lith. London 1208 3 91.

AUGUST, 1880.

Chart Plate 15.

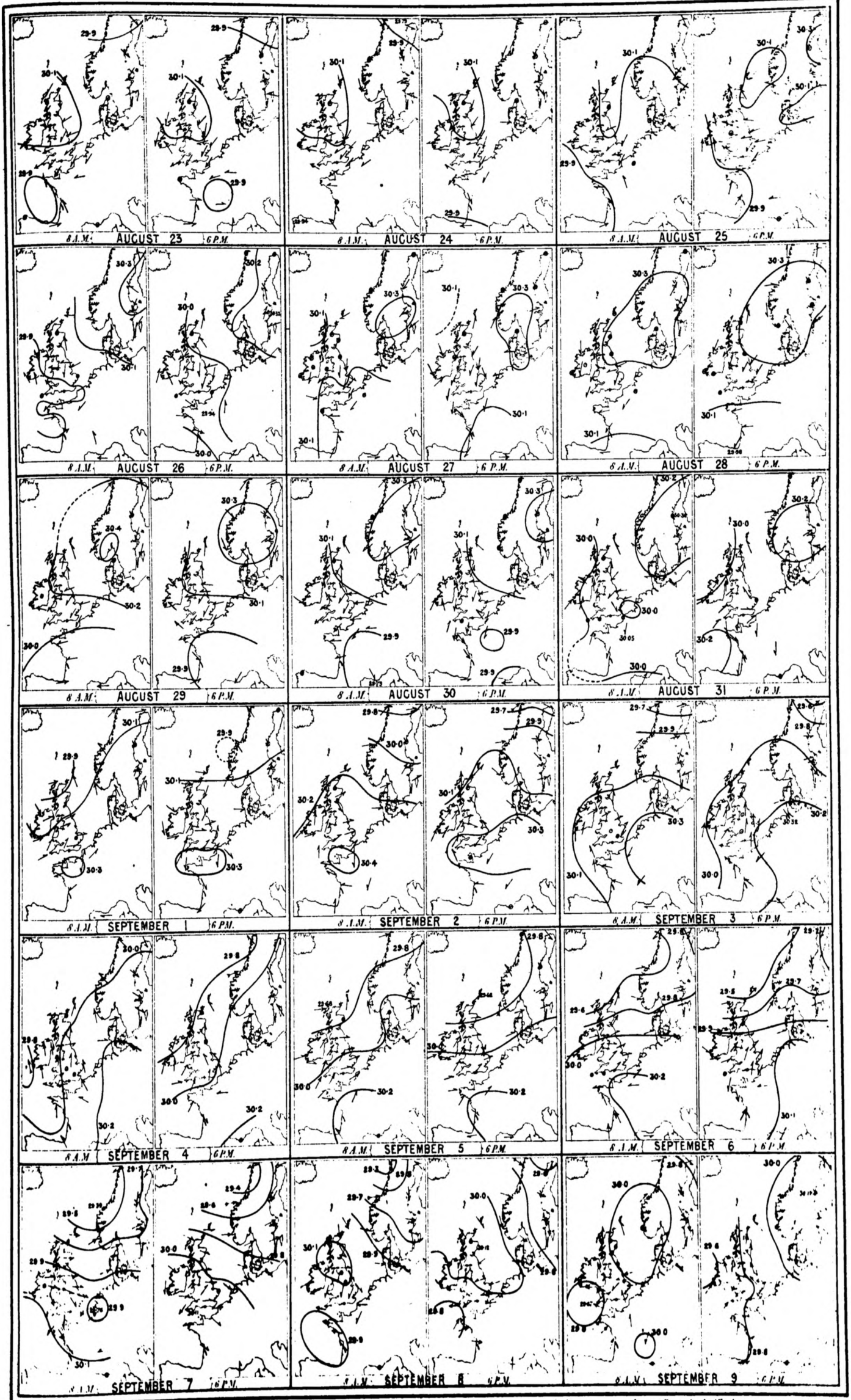


Wind Force ⊙ Calm · Light to Moderate. ——→ Fresh to Strong. ←——→ Gale. Arrows fly with the Wind

Jund & Co. Lith. London (208.3.91)

August & September, 1880.

Chart Plate 14.

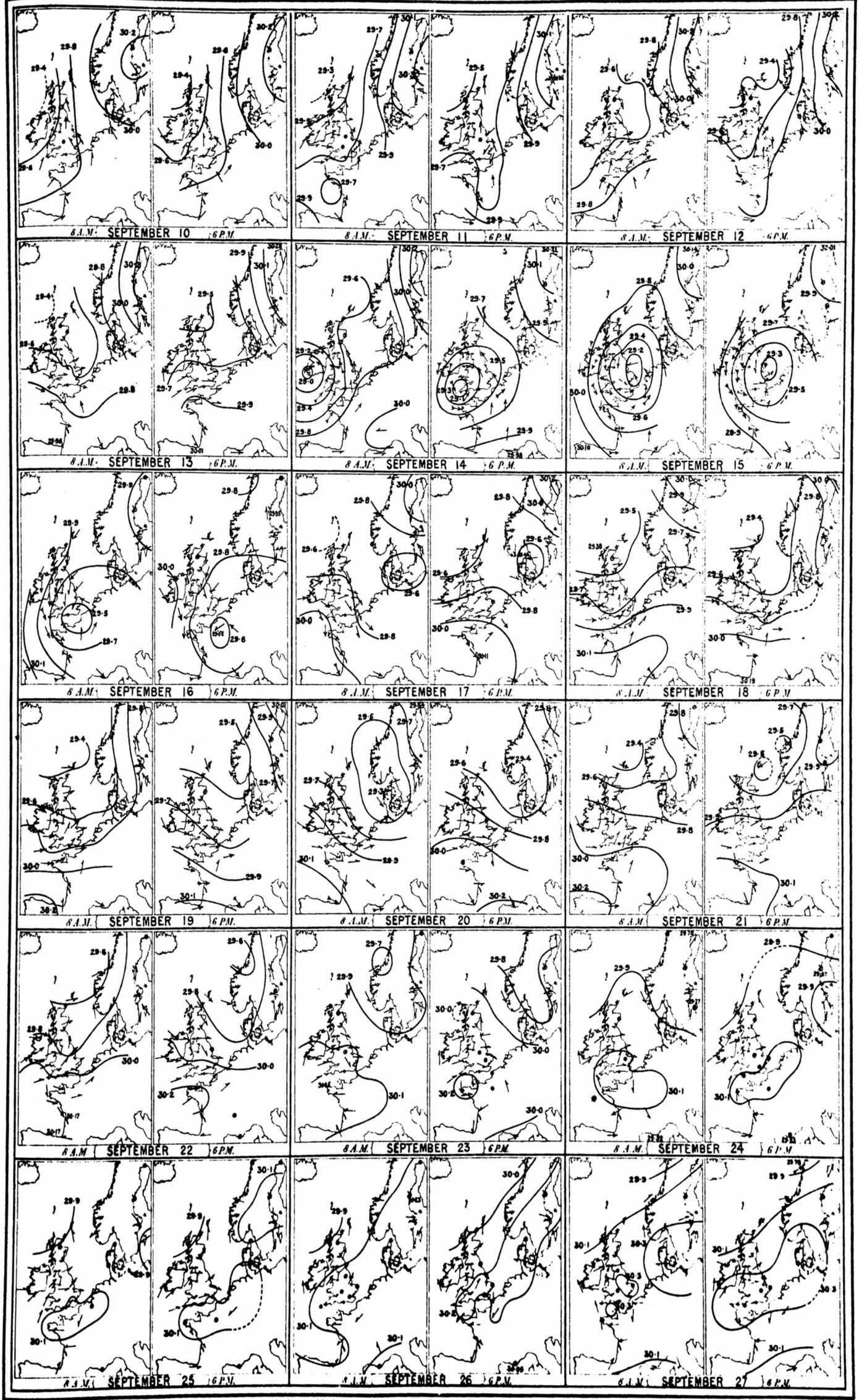


Wind Force.. 0 = Calm · Light to Moderate · Fresh to Strong · Gale · Arrows fly with the Wind

Judd & Co Lith London 1208.3.91

SEPTEMBER, 1880.

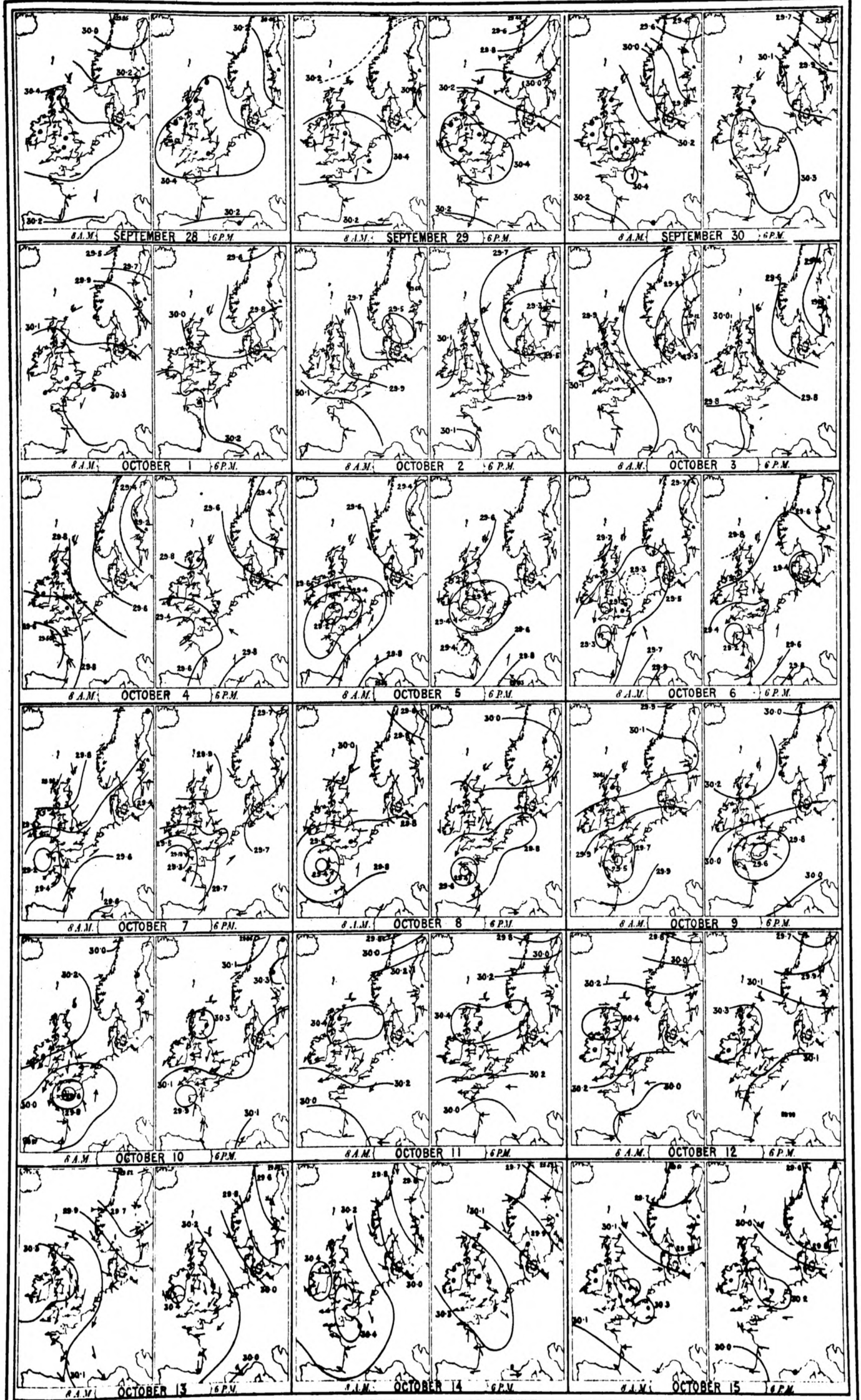
Chart Plate 15.



Wind Force — ⊙ — Calm ····· Light to Moderate. ——— Fresh to Strong. ←····→ Gale Arrows fly with the Wind

Judd & Co. Lith. London 1208 391

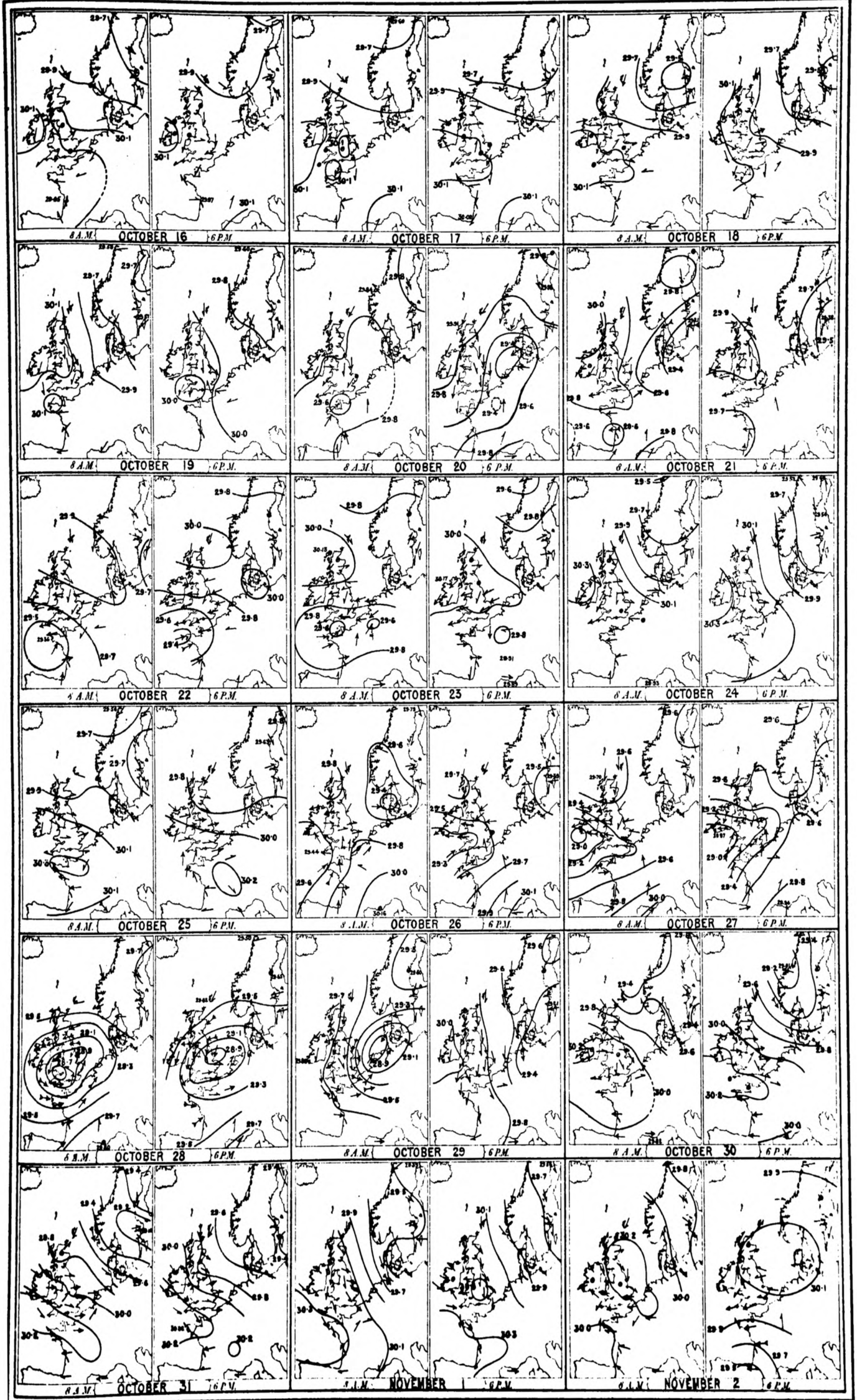
SEPTEMBER & OCTOBER, 1880.



Wind Force. ⊙ — Calm ------→ Light to Moderate. ——→ Fresh to Strong. ←——→ Gale. Arrows fly with the Wind.

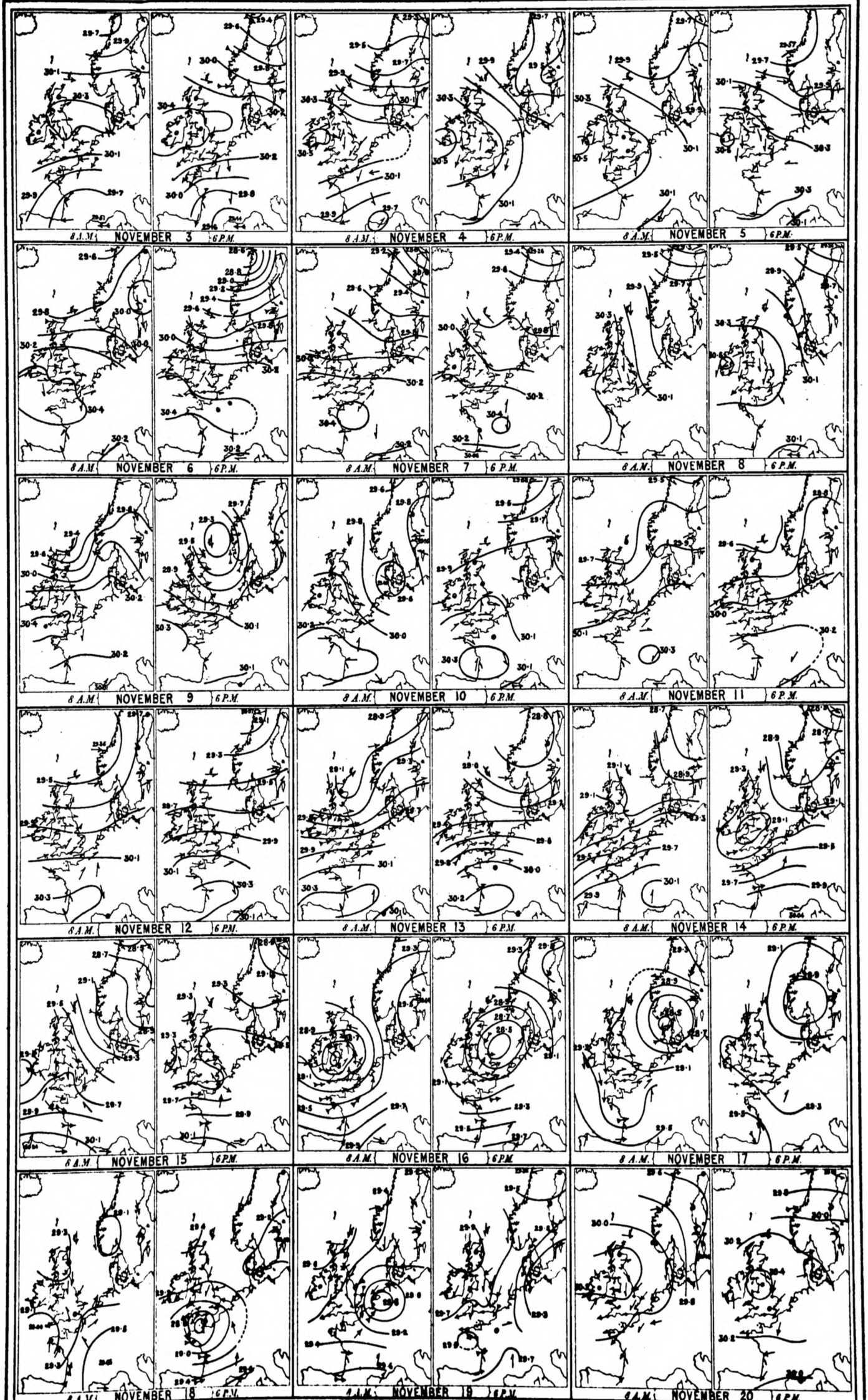
OCTOBER & NOVEMBER, 1880.

Chart Plate 17.



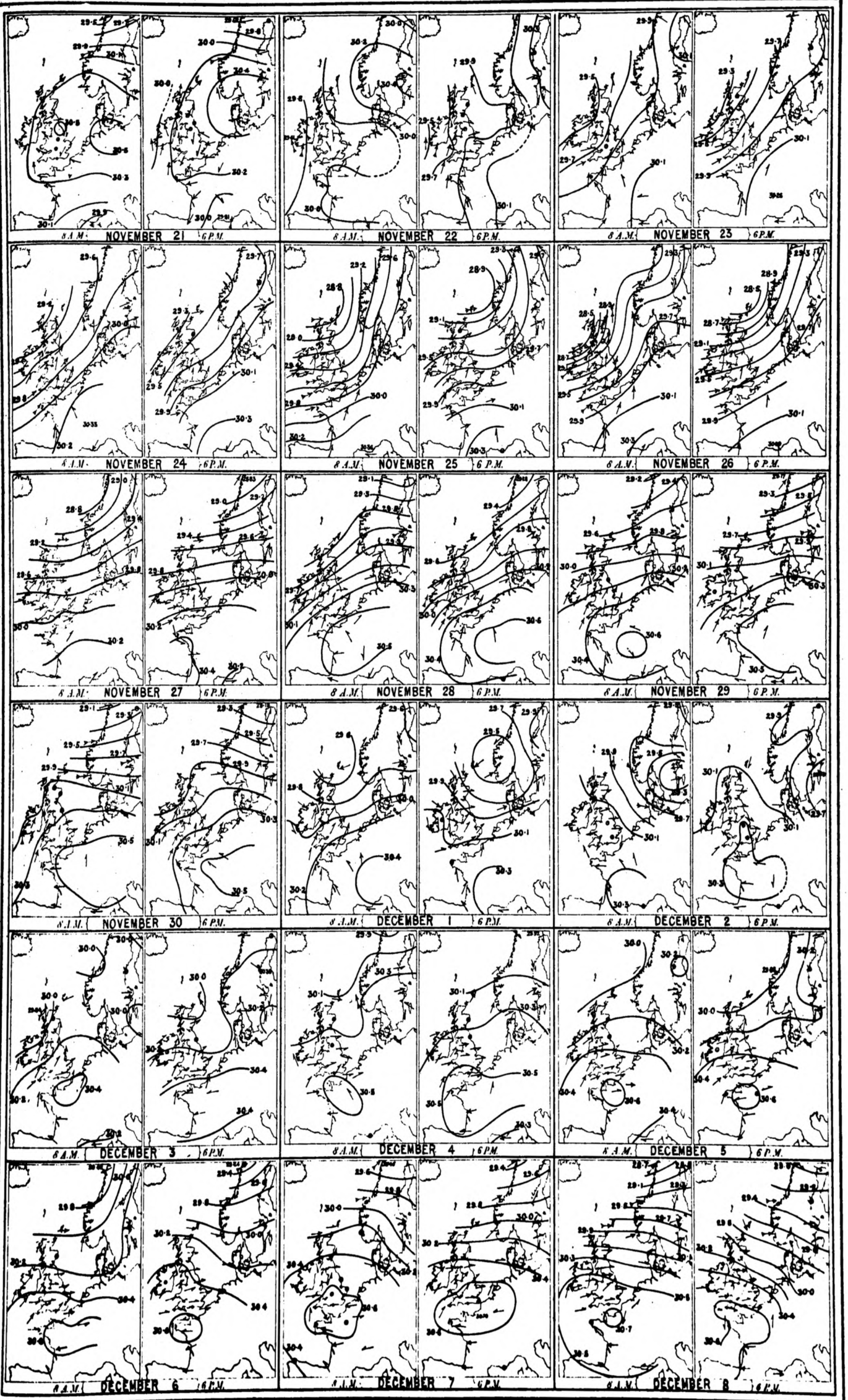
Wind Force.— ⊙ — Calm ——→ Light to Moderate. — — → Fresh to Strong. ←——→ Gale. Arrows fly with the Wind.

NOVEMBER, 1880.



Wind Force. ⊙ – Calm —— Light to Moderate. ——→ Fresh to Strong. ←—→ Gale. Arrows fly with the Wind.

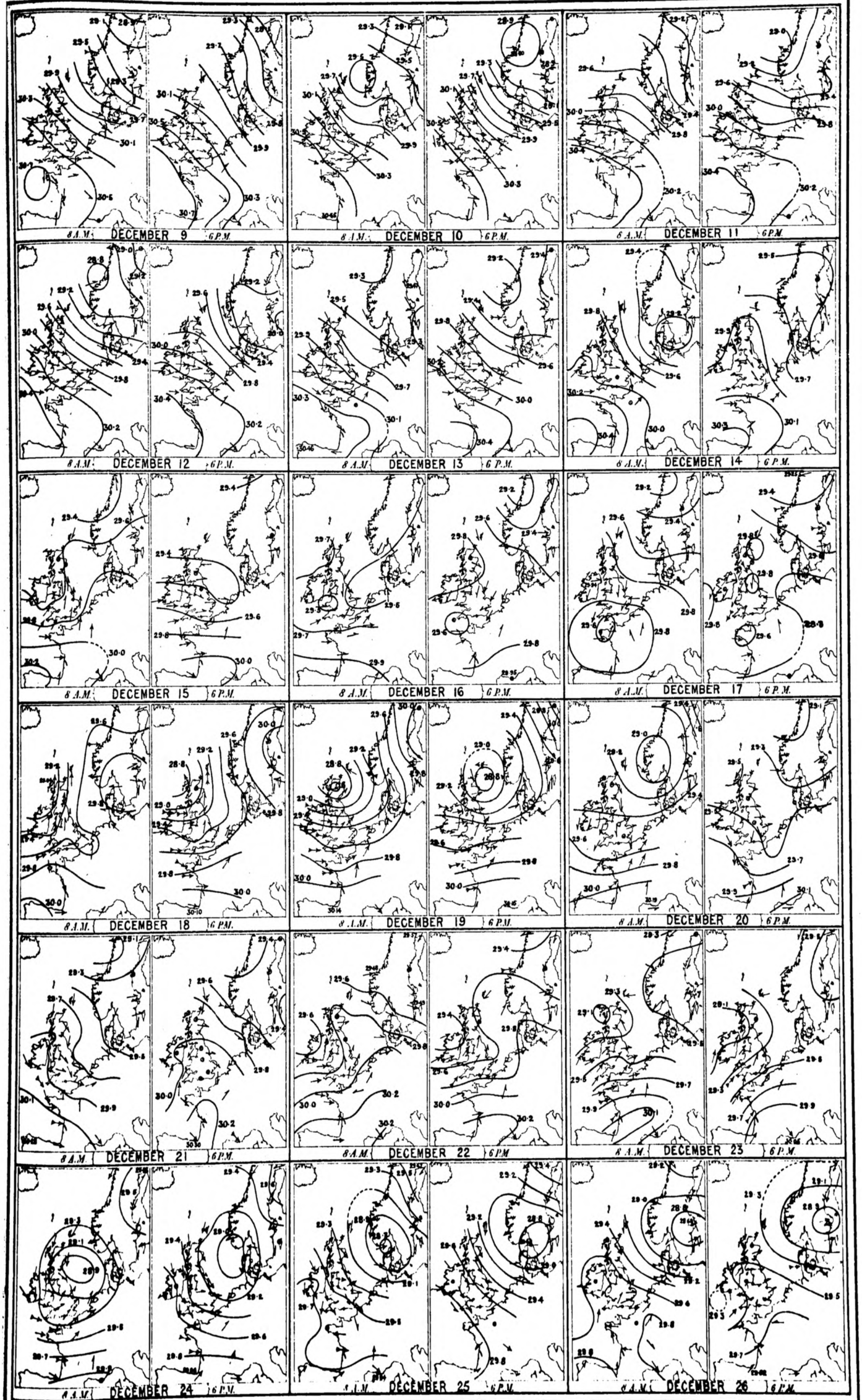
NOVEMBER & DECEMBER, 1880.



Wind Force — ⊙ — Calm - - - - Light to Moderate. → Fresh to Strong. ←——→ Gale. Arrows fly with the Wind

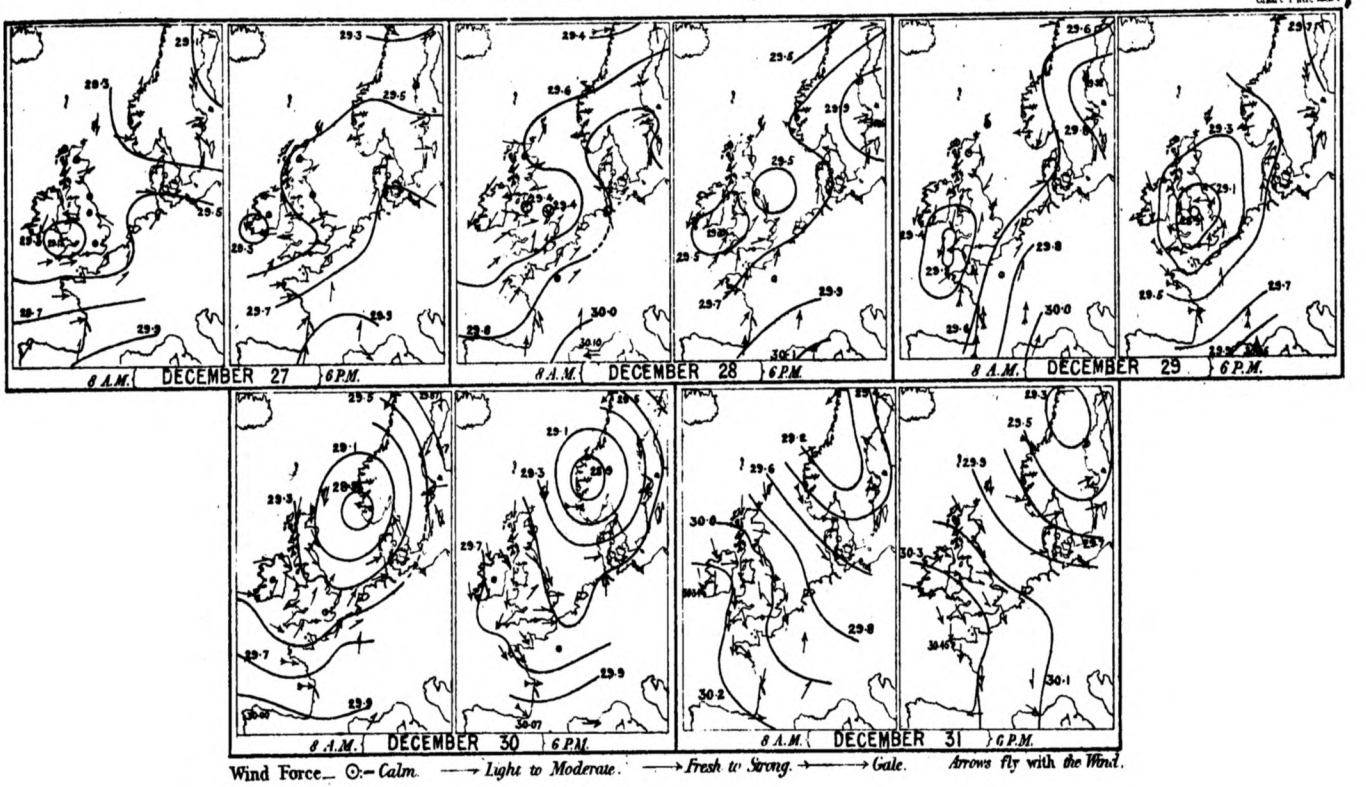
DECEMBER, 1880.

Chart Plate 20.



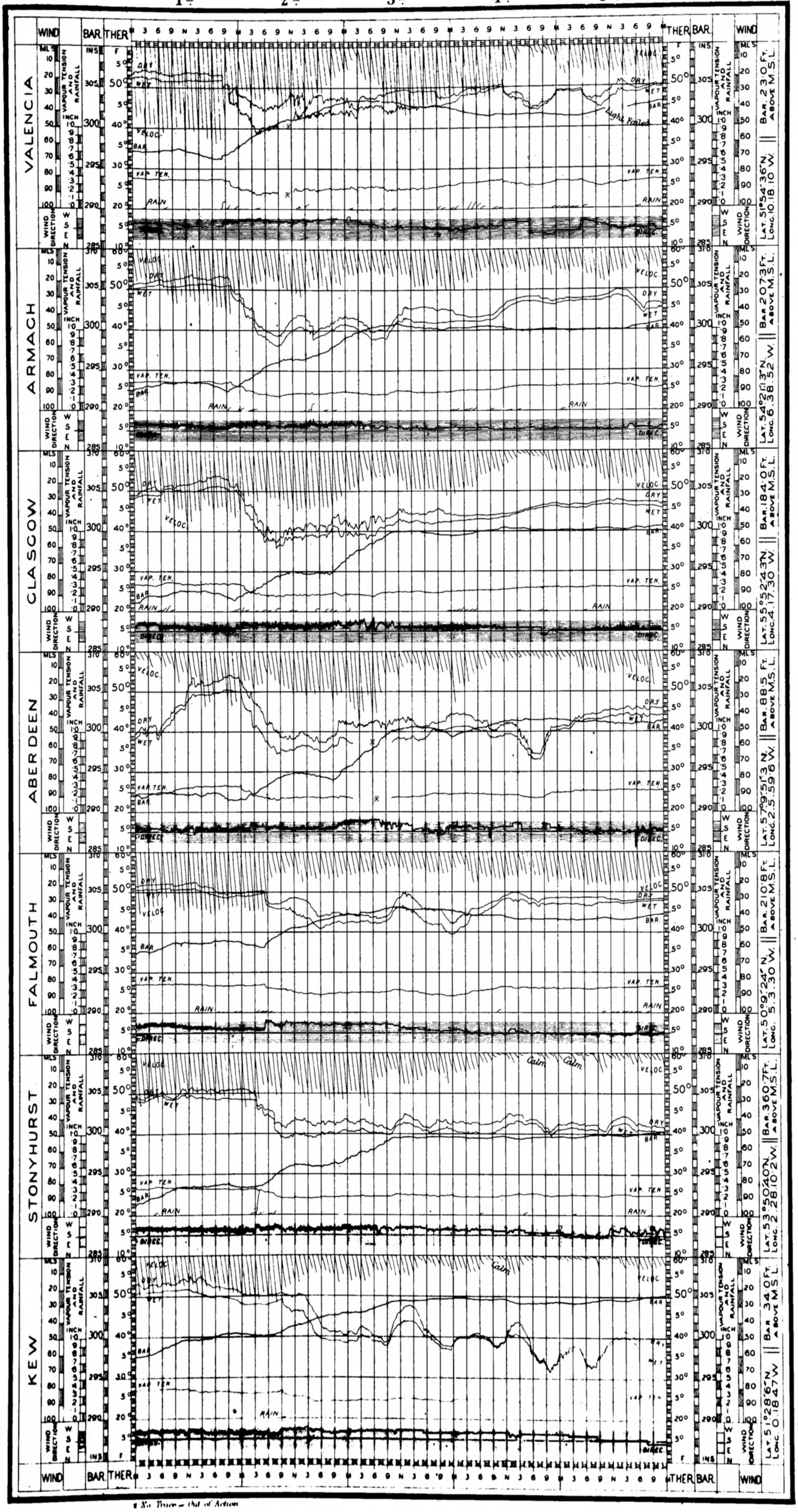
Wind Force — ⊙ — Calm ····· Light to Moderate. ------ Fresh to Strong. ——→ Gale. Arrows fly with the Wind.

DECEMBER, 1880.



Wind Force.— ⊙ = Calm. ⟶ Light to Moderate. ⟶ Fresh to Strong. ⟶ Gale. Arrows fly with the Wind.

JANUARY — 1880.

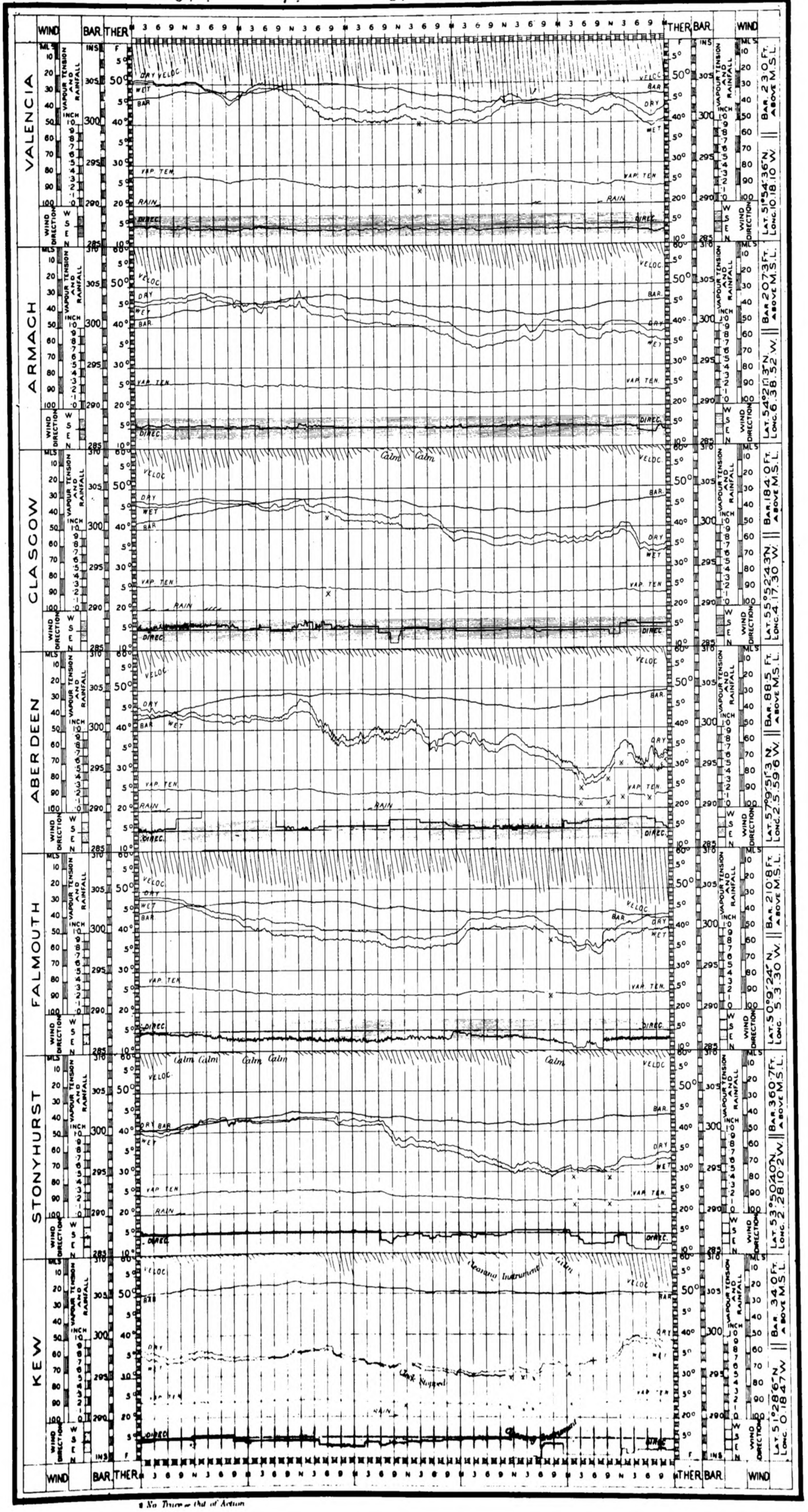


* No Trace = Out of Action

JANUARY — 1880.

6TH 7TH 8TH 9TH 10TH

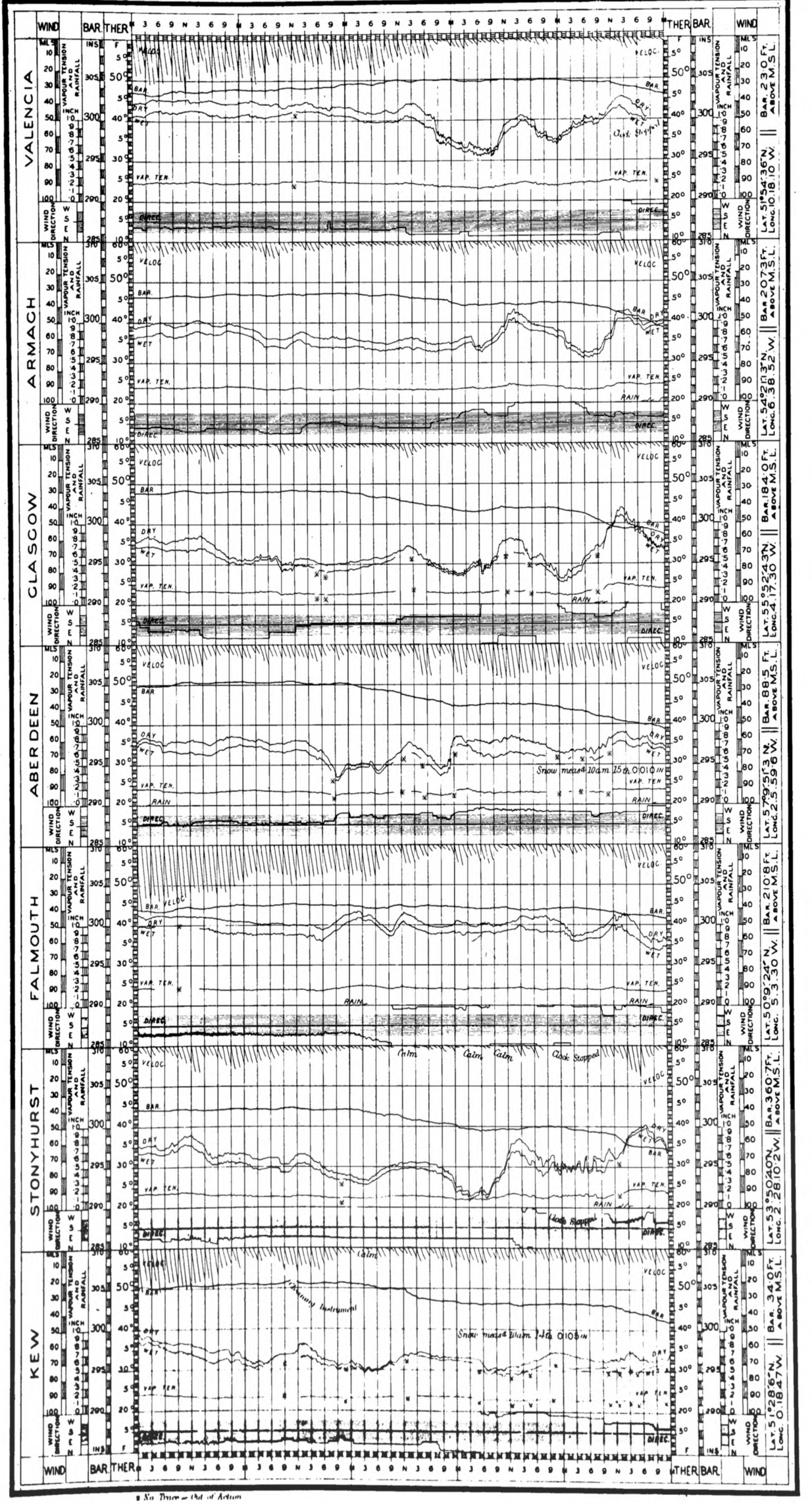
Plate II.



* No Trace — Out of Action

JANUARY — 1880.

Plate III.

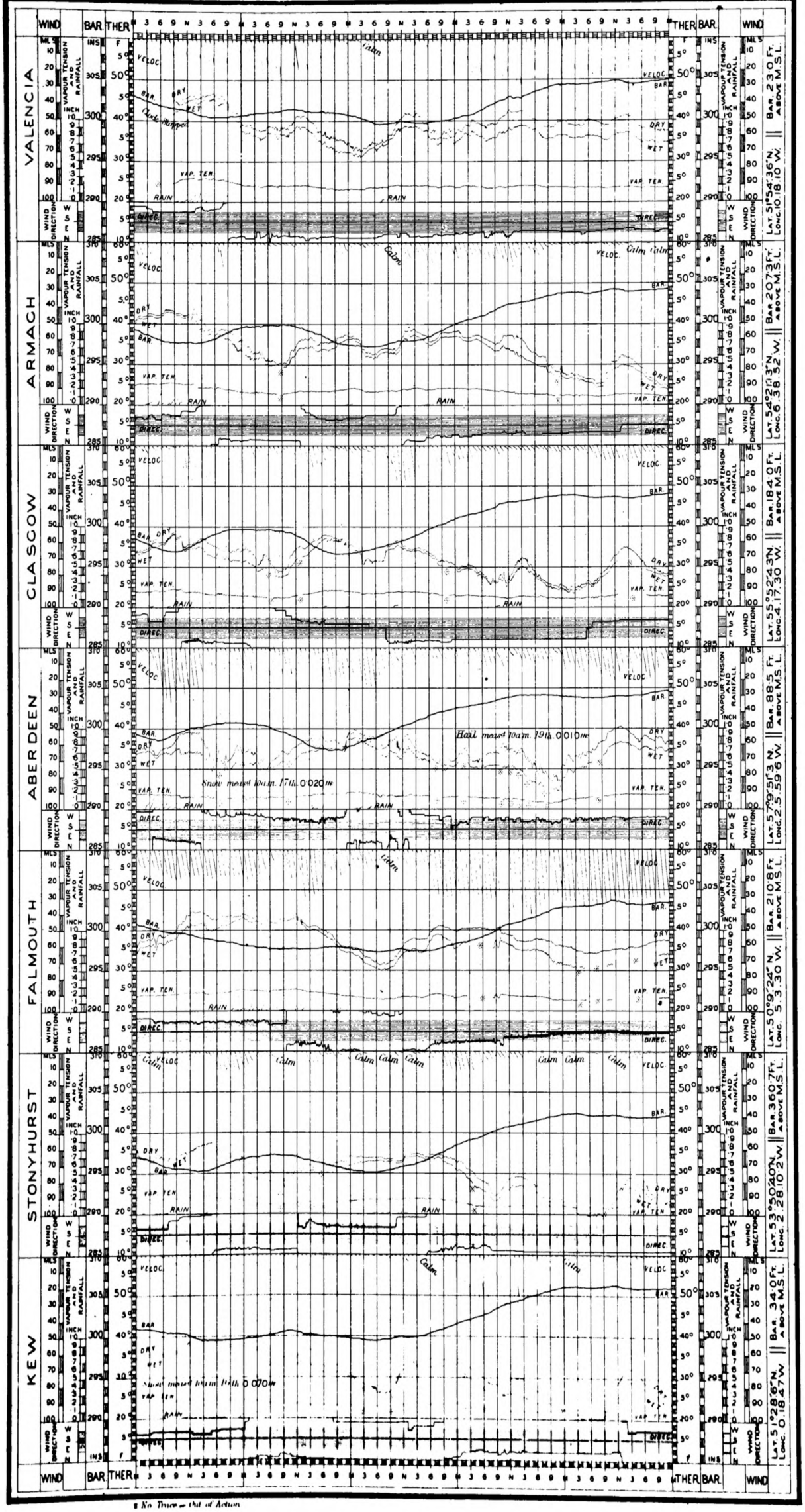


* No Trace — Out of Action

JANUARY — 1880.

16TH 17TH 18TH 19TH 20TH

Plate IV.

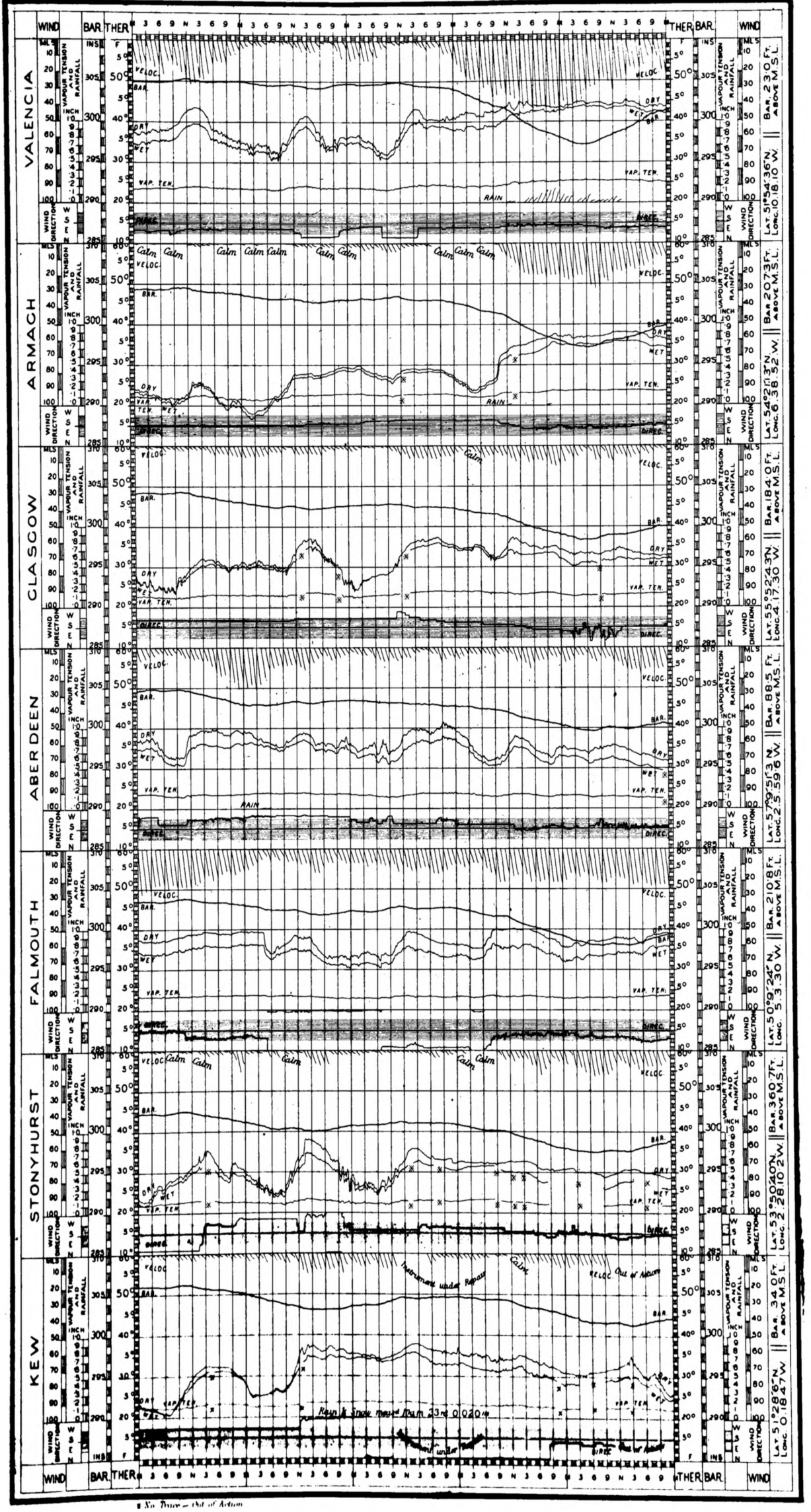


* No Trace = Out of Action

JANUARY — 1880.

21ST 22ND 23RD 24TH 25TH

Plate V.

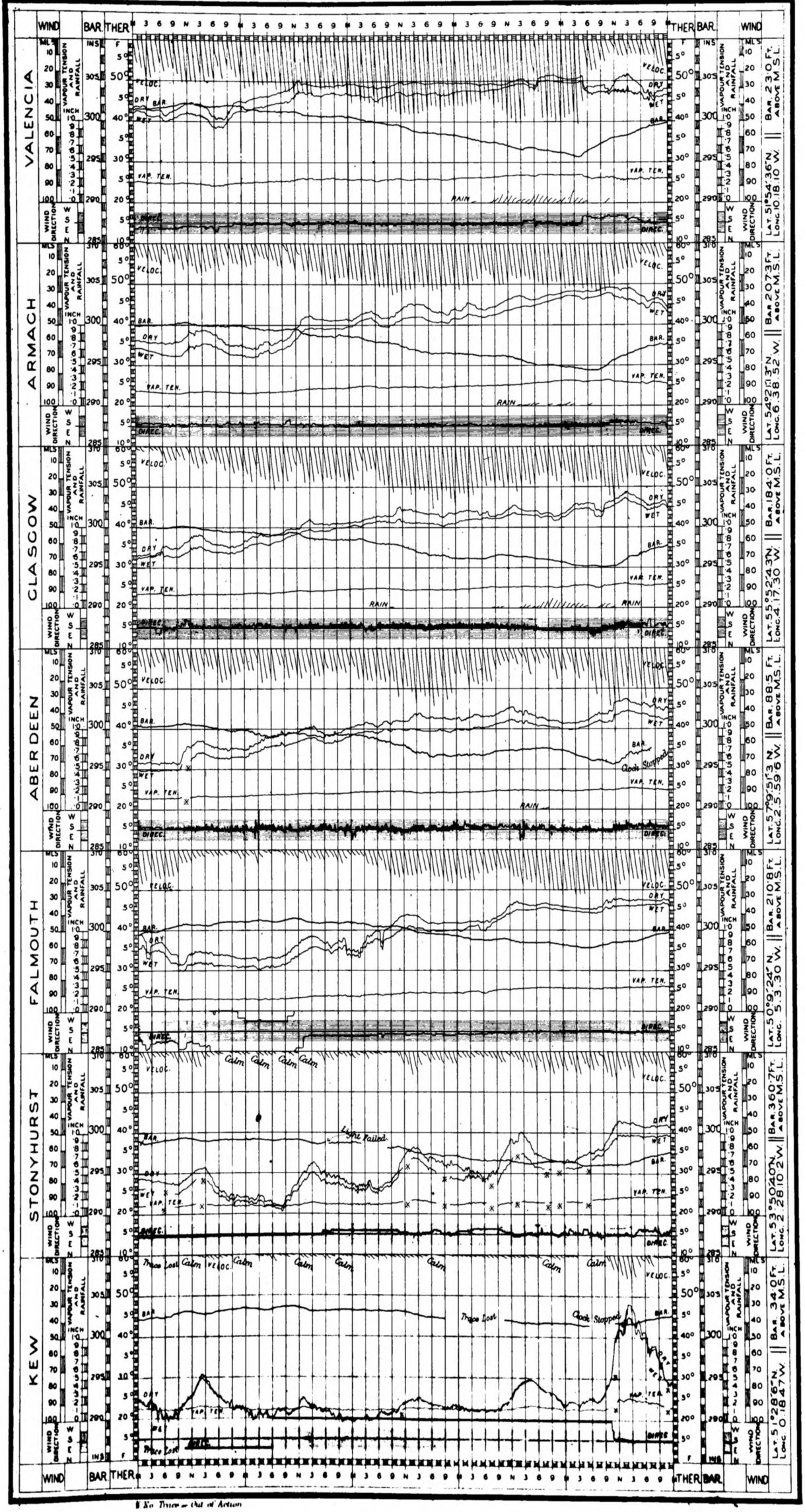


* No Direc = Out of Action

JANUARY — 1880.

26TH 27TH 28TH 29TH 30TH

Plate VI.

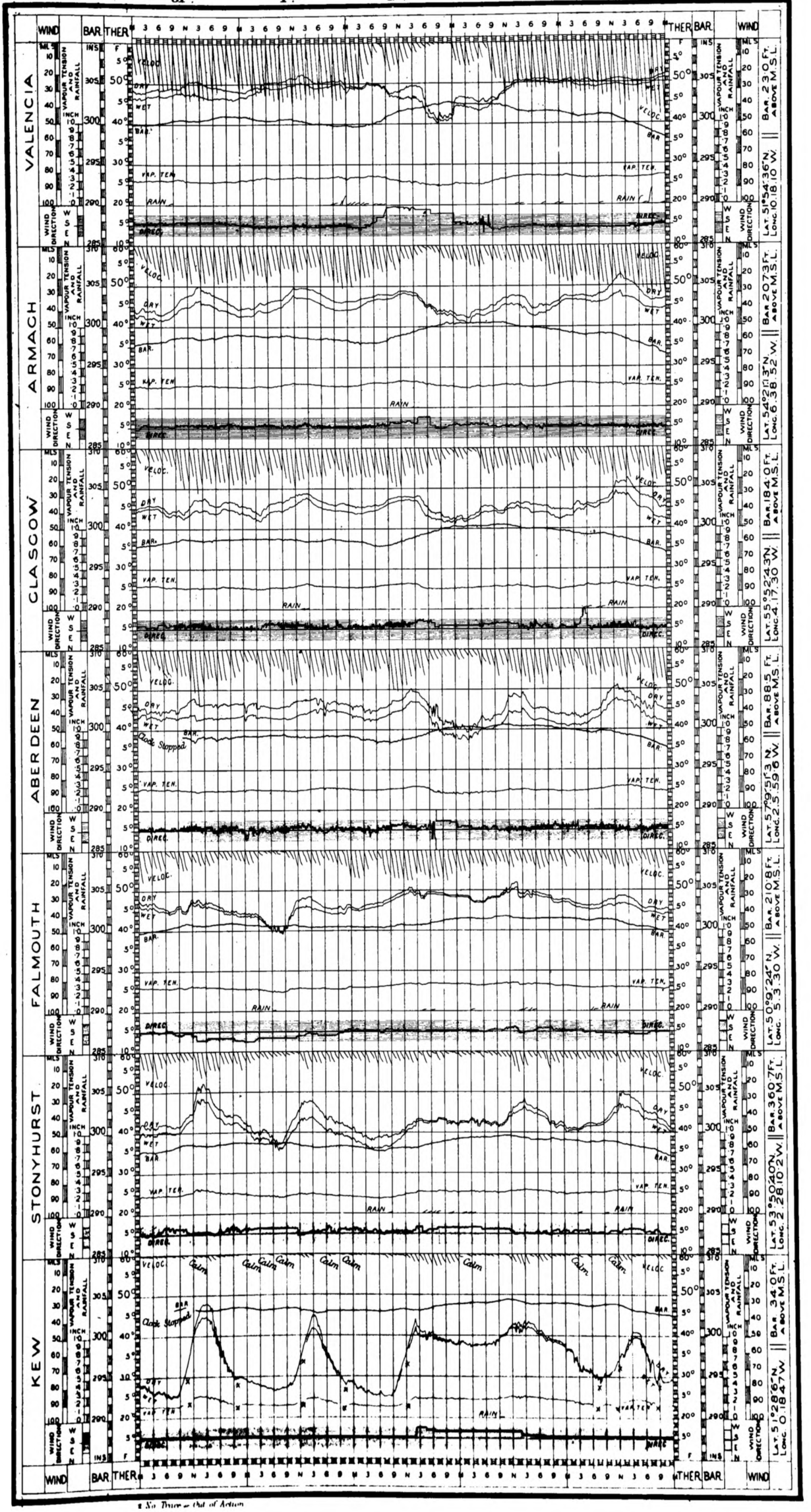


No Trace = Out of Action

JANUARY & FEBRUARY — 1880.

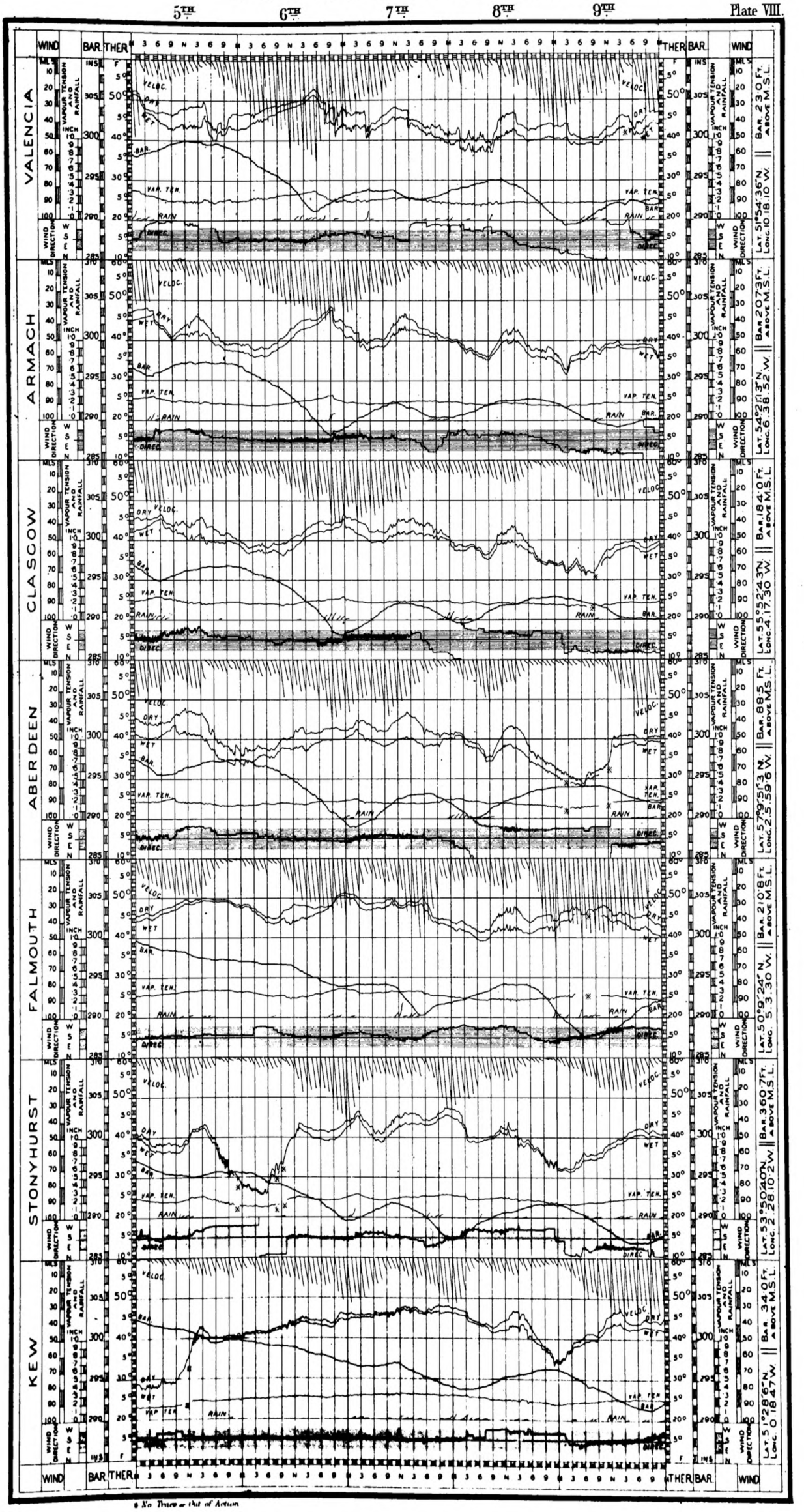
Plate VII.

31ST 1ST 2ND 3RD 4TH



FEBRUARY — 1880.

Plate VIII.

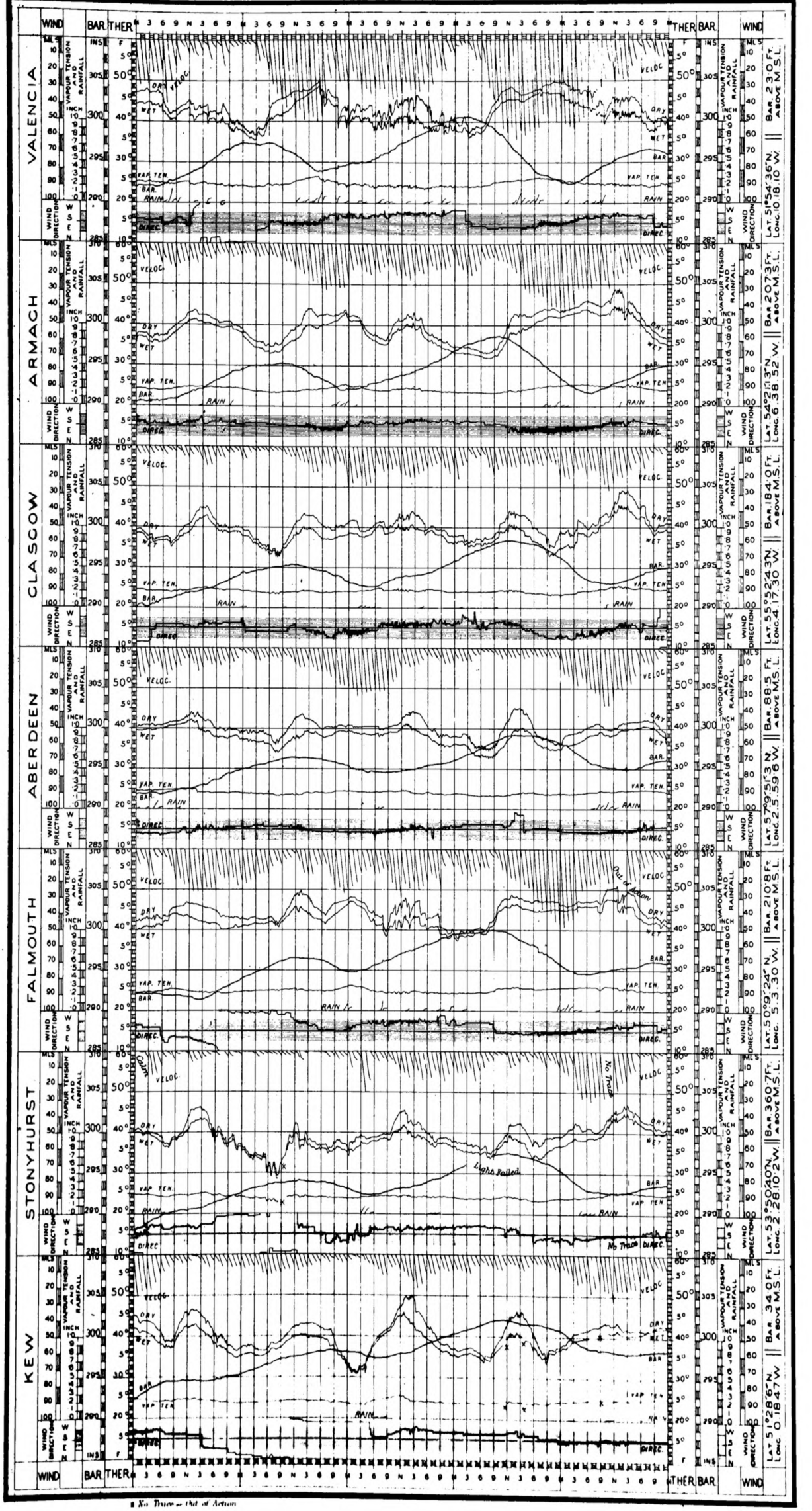


* No Trace or Out of Action

FEBRUARY — 1880.

10TH 11TH 12TH 13TH 14TH

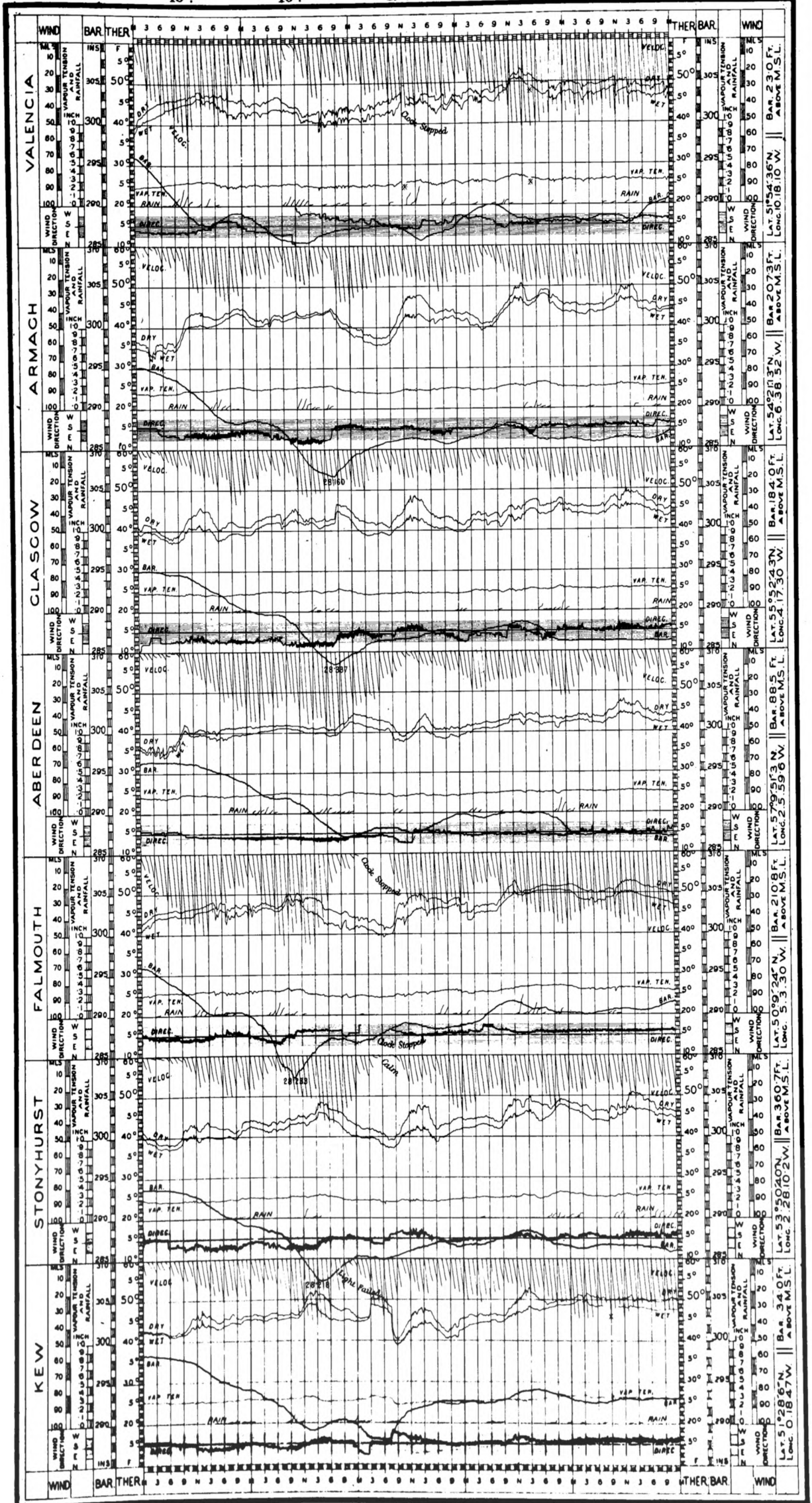
Plate IX.



* No Trace or Out of Action

FEBRUARY — 1880.

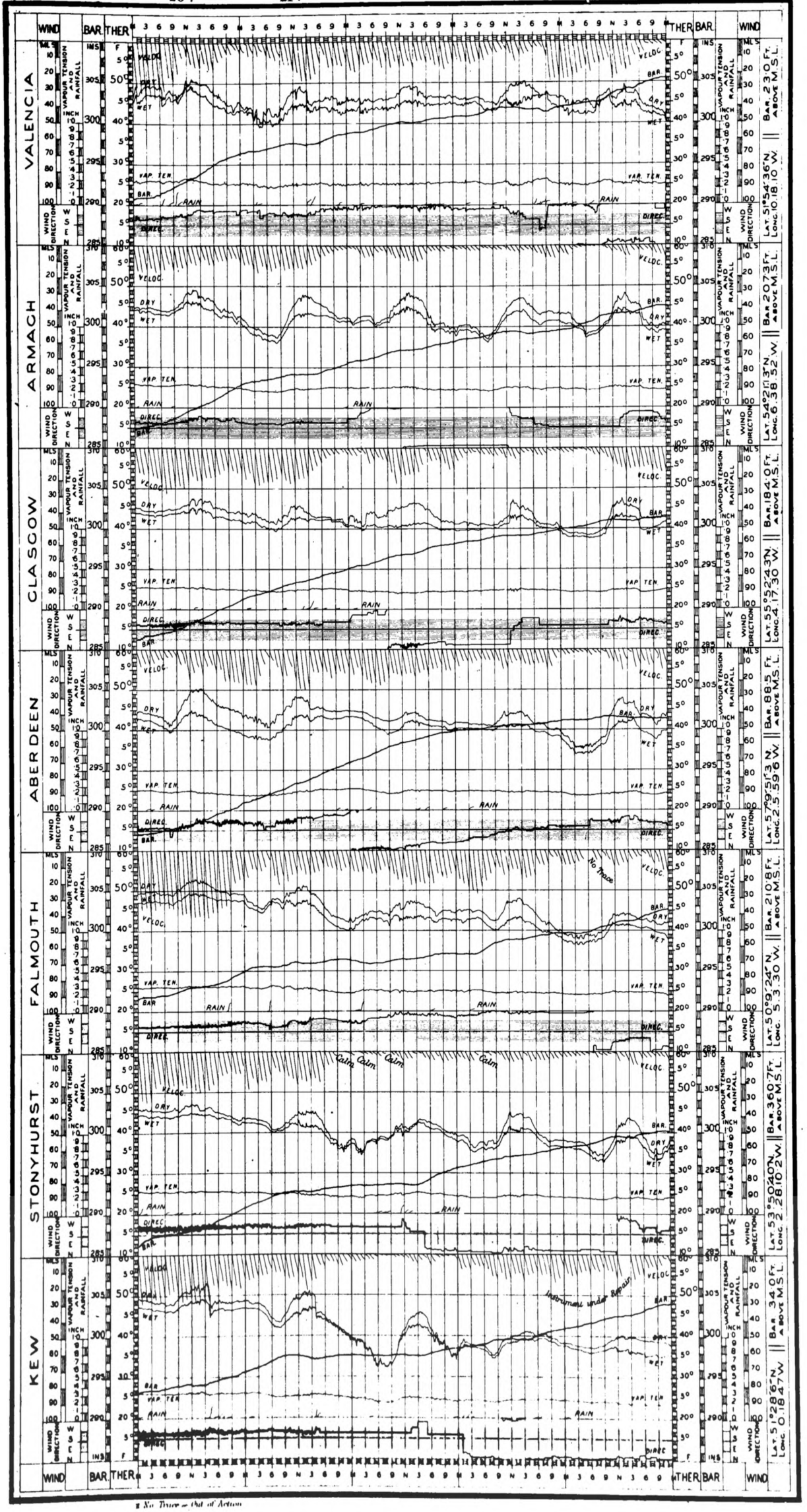
Plate X.



* No Trace — Out of Action

FEBRUARY—1880.

20TH 21ST 22ND 23RD 24TH

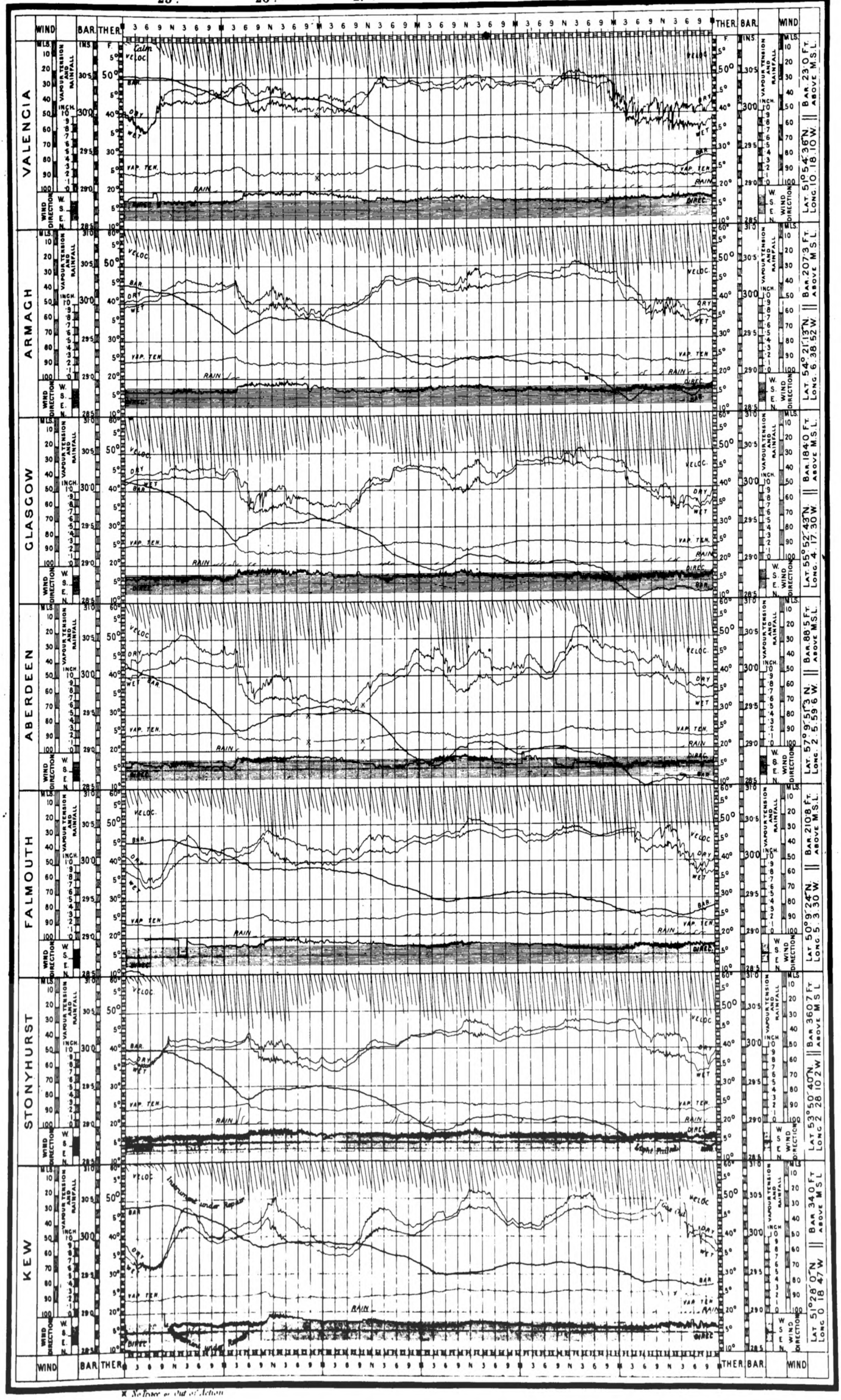


* No Trace or Out of Action

FEBRUARY & MARCH—1880.

25TH 26TH 27TH 28TH 29TH 1ST

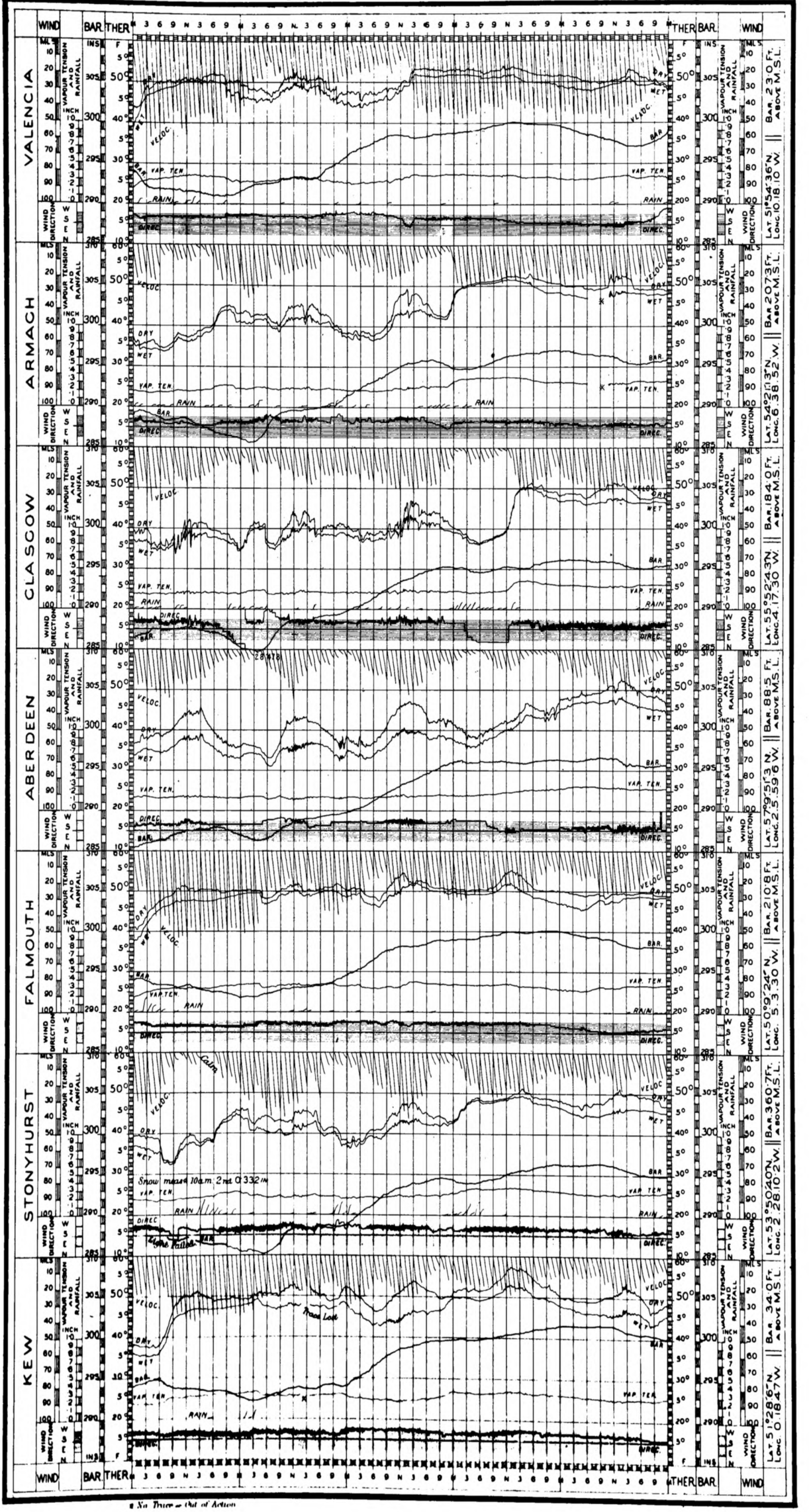
Plate XII.



* No force or out of action

M A R C H — 1 8 8 0.

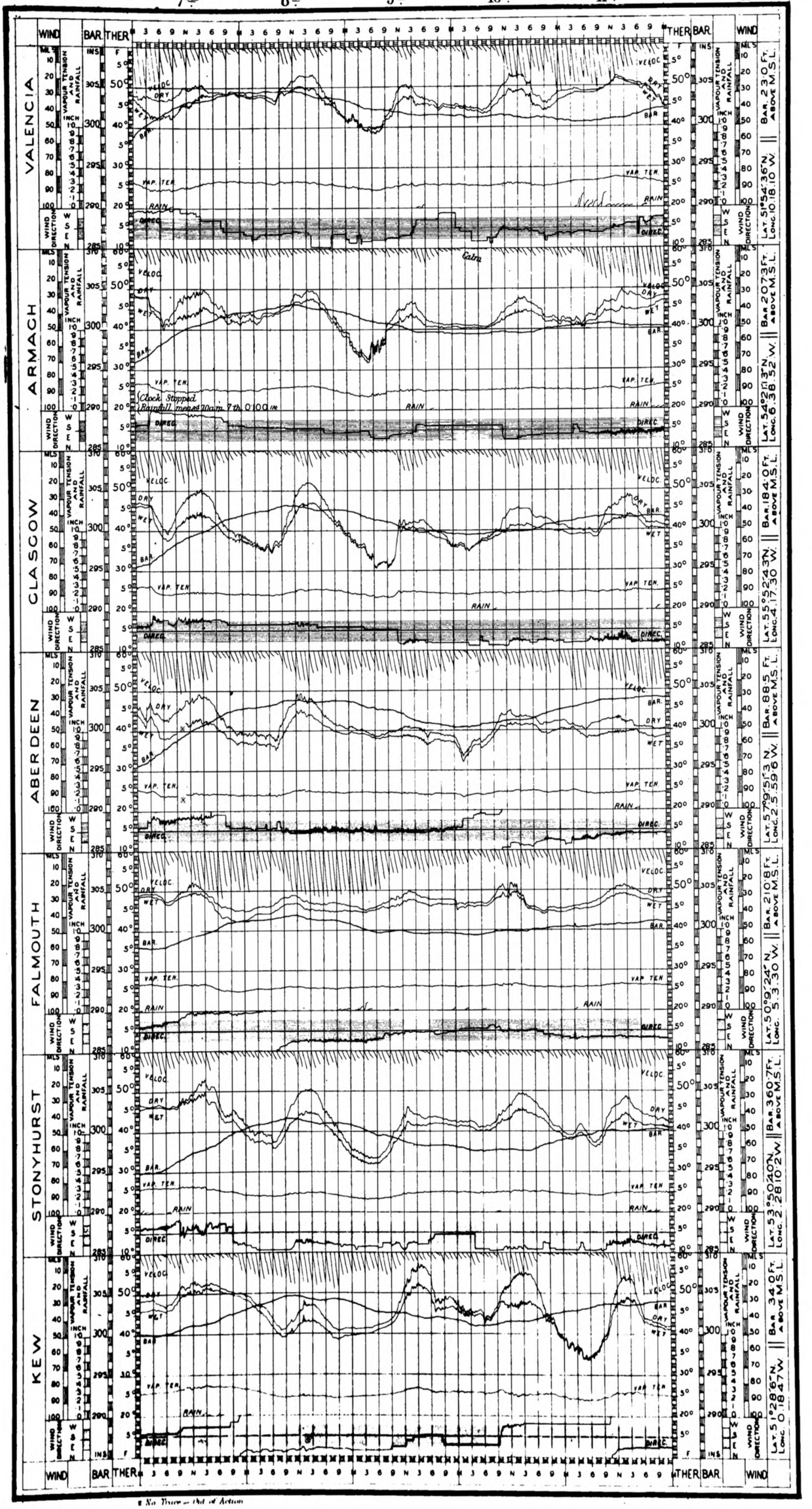
2ND 3RD 4TH 5TH 6TH Plate XIII.



* No Trace = Out of Action

MARCH — 1880.

Plate XIV.

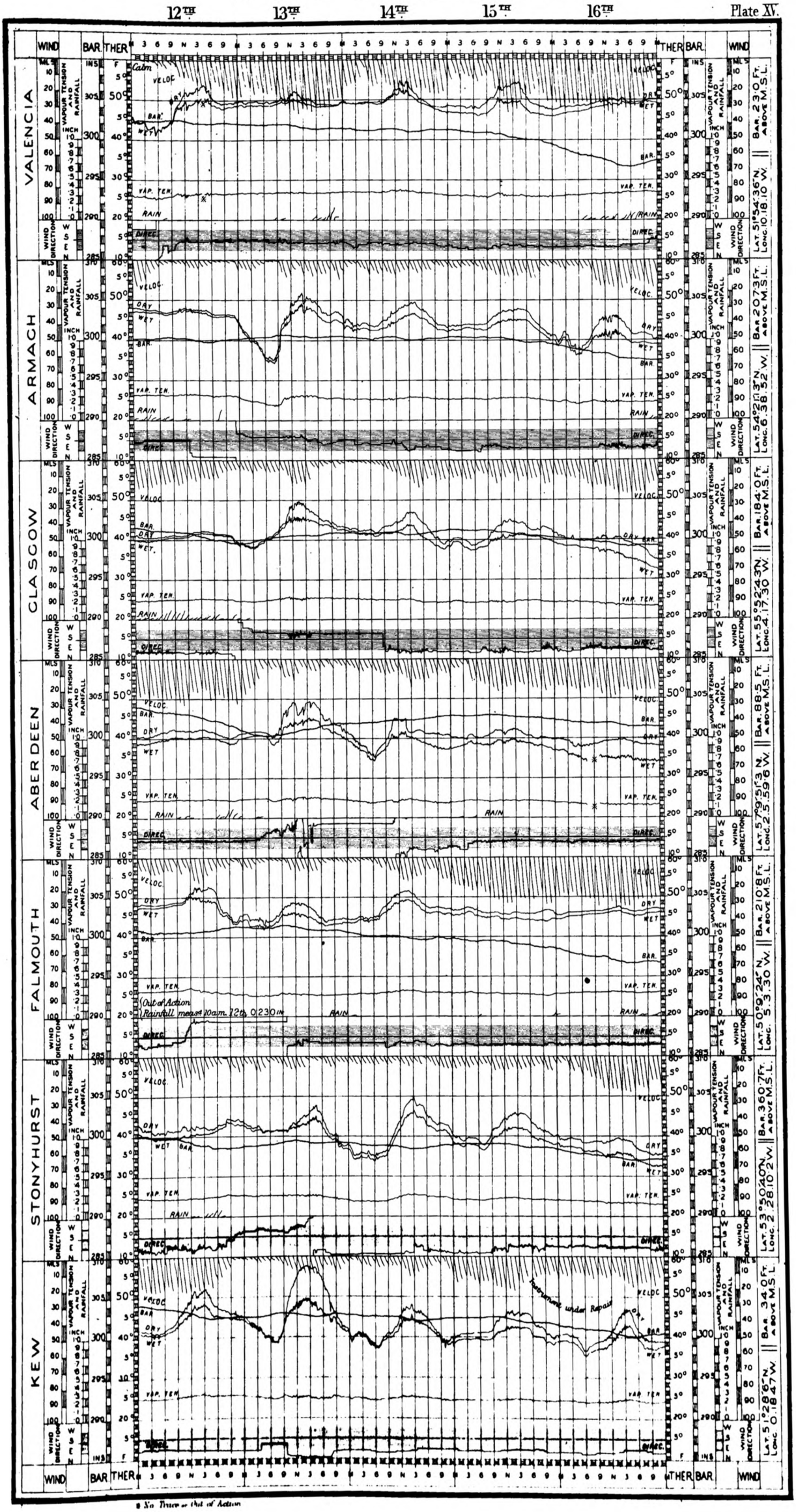


* No Trace or Out of Action

MARCH — 1880.

12TH 13TH 14TH 15TH 16TH

Plate XV.

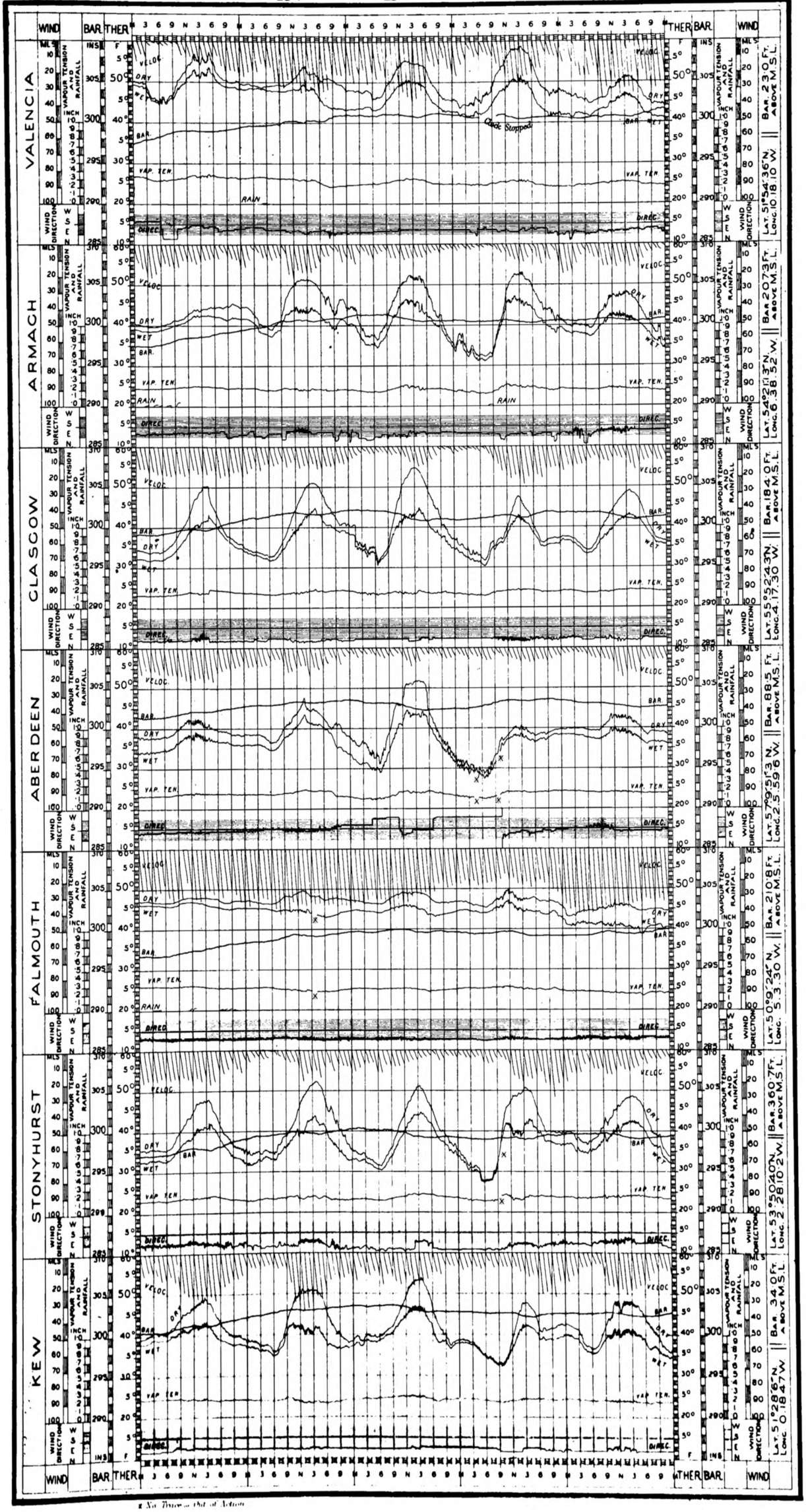


* No Trace or Out of Action

MARCH — 1880.

17TH 18TH 19TH 20TH 21ST

Plate XVI.

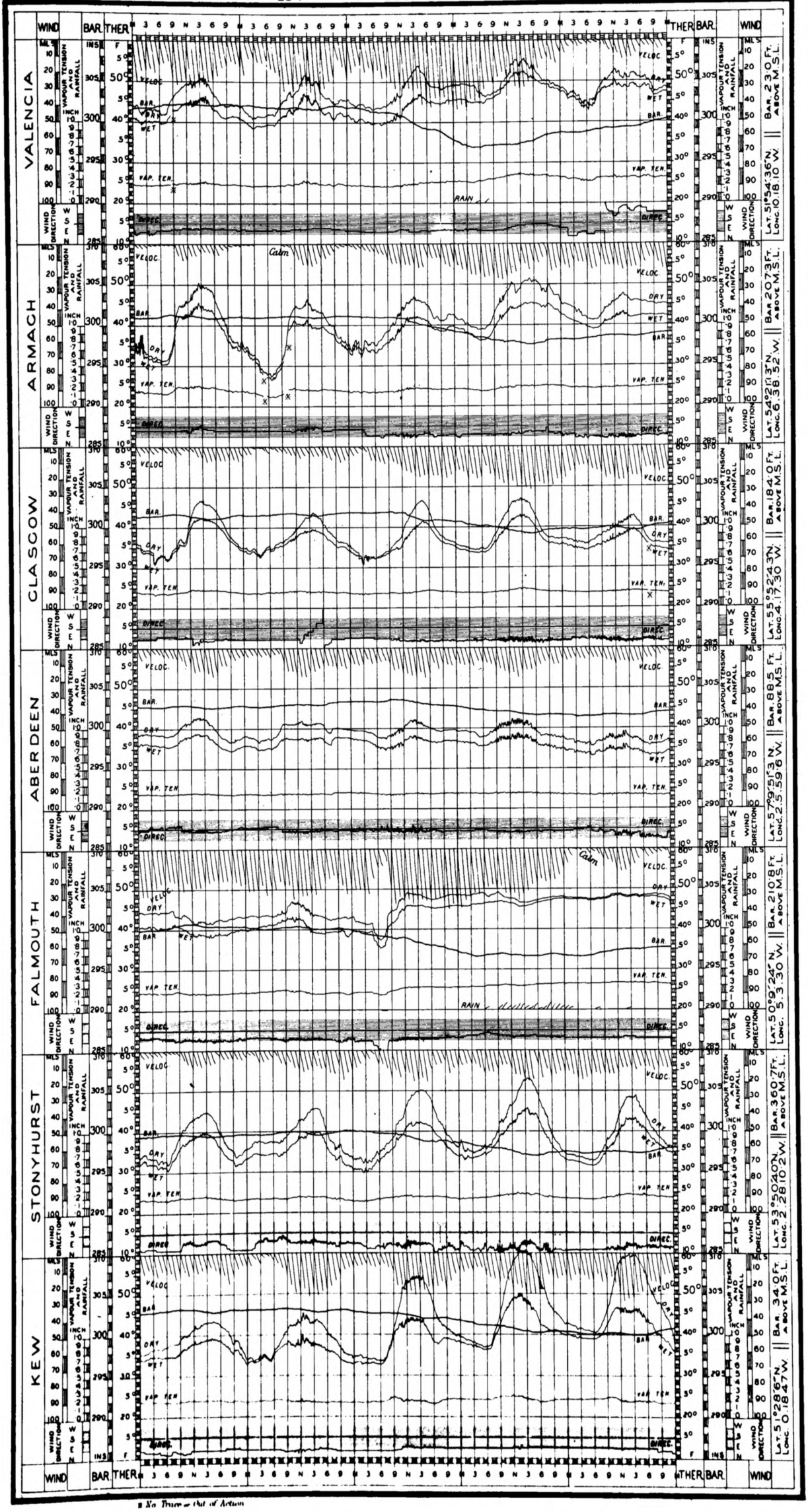


x No Trace — Out of Action

MARCH — 1880.

22ND 23RD 24TH 25TH 26TH

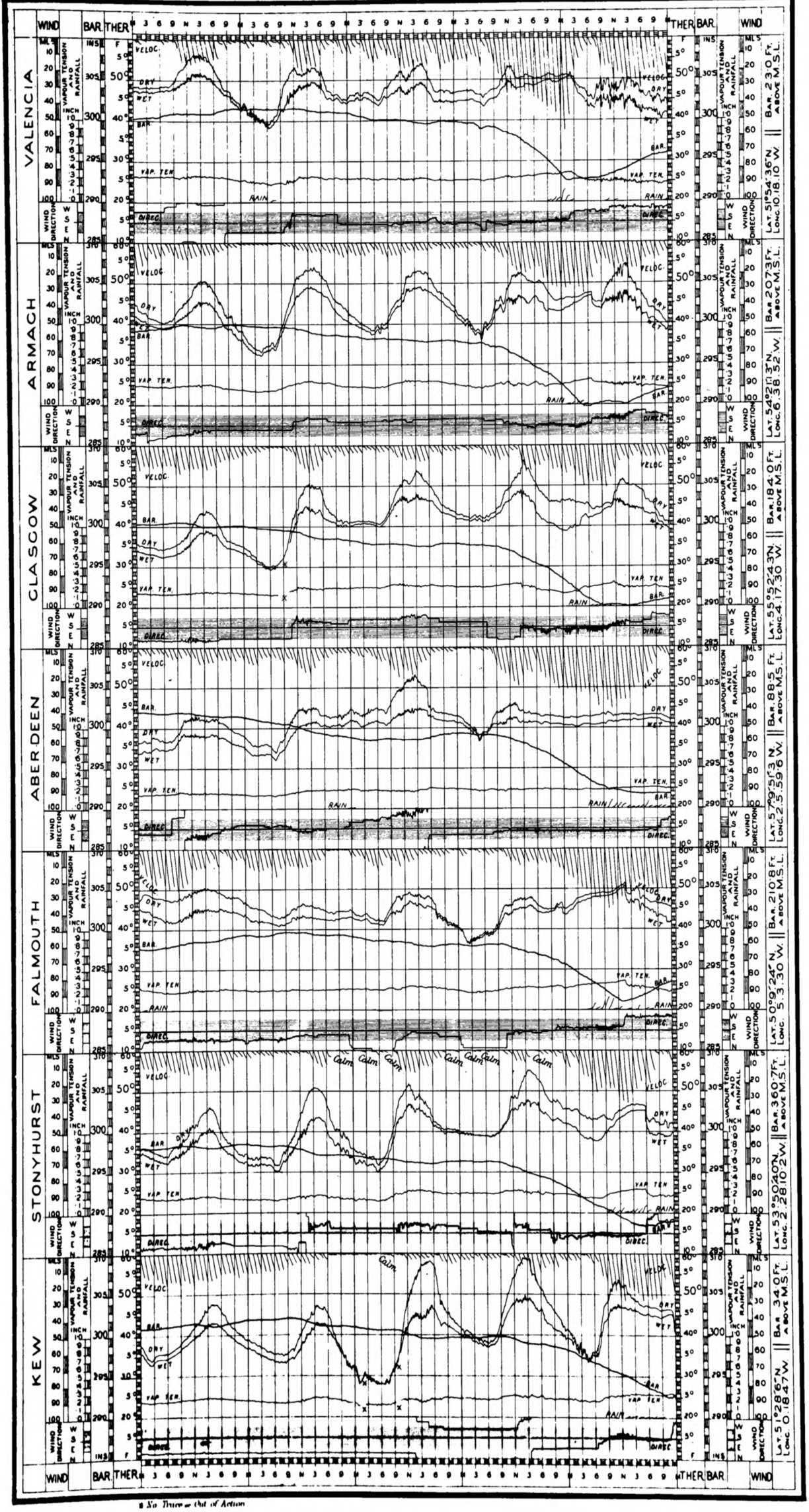
Plate XVII.



■ No Trace = Out of Action

MARCH — 1880.

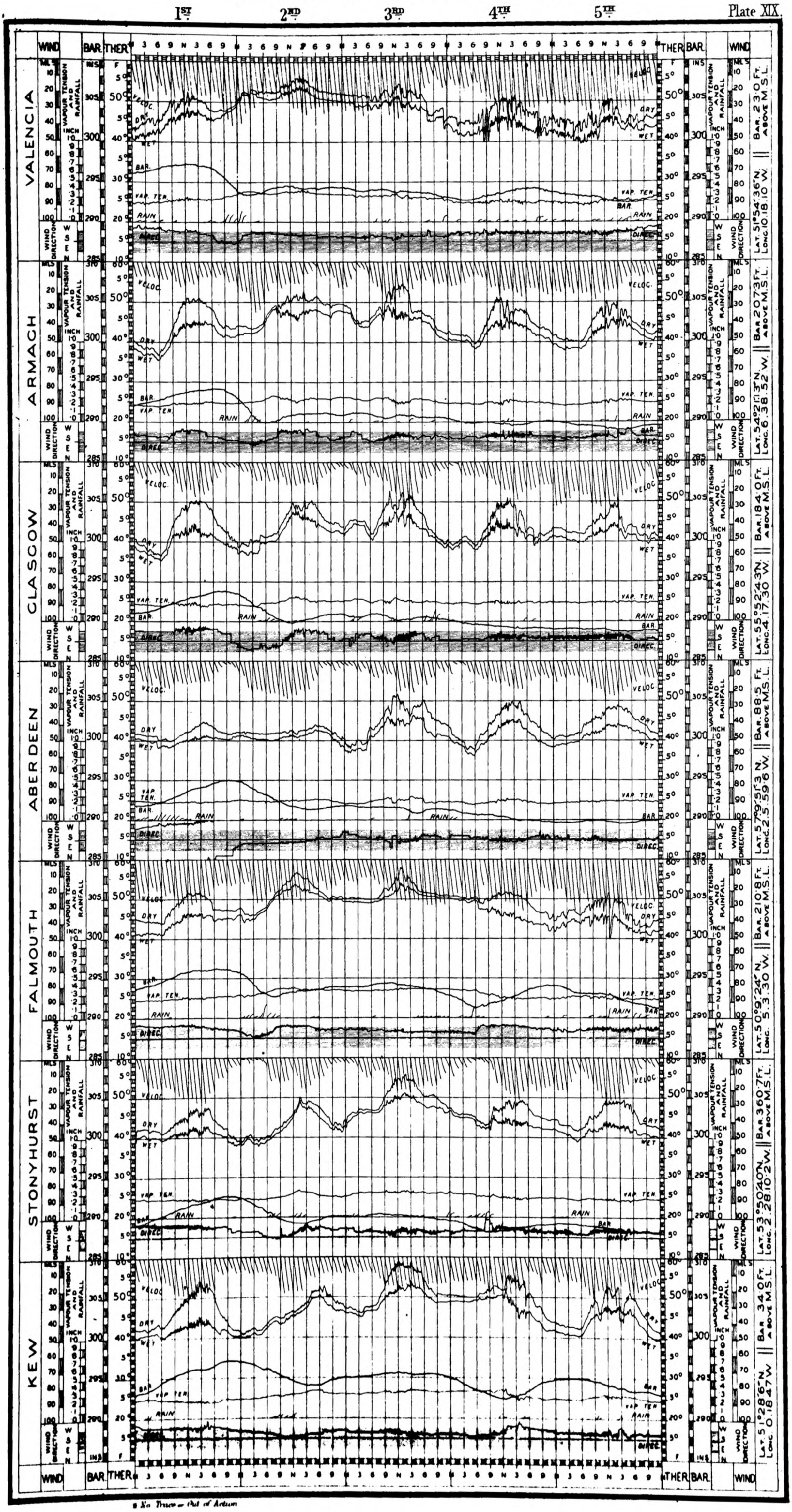
Plate XVIII.



* No Trace or Out of Action

APRIL — 1880.

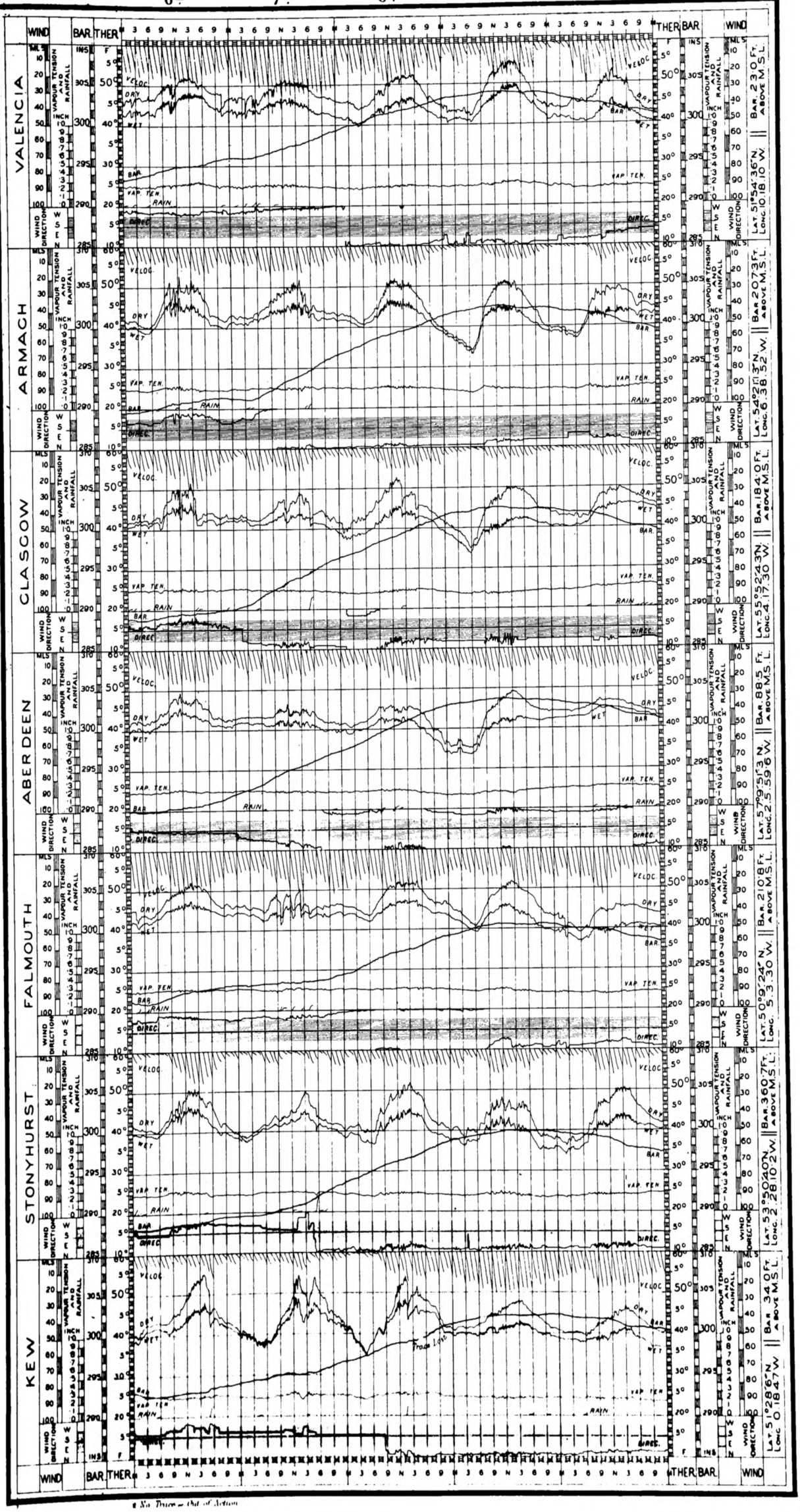
Plate XIX.



* No Trace — Out of Action

APRIL — 1880.

Plate XX.

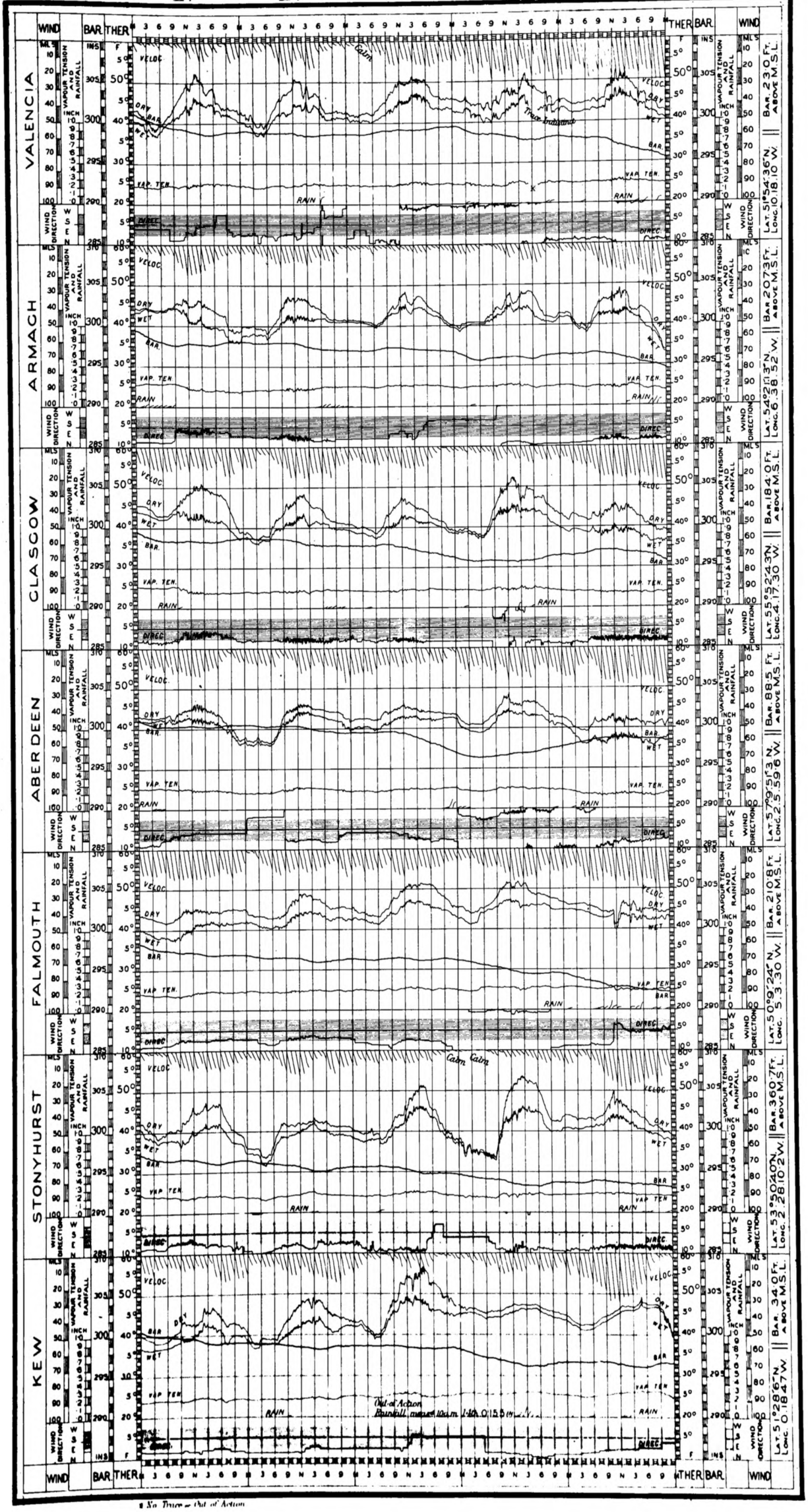


No Trace = Out of Action

APRIL ___ 1880.

Plate XV.

11TH 12TH 13TH 14TH 15TH

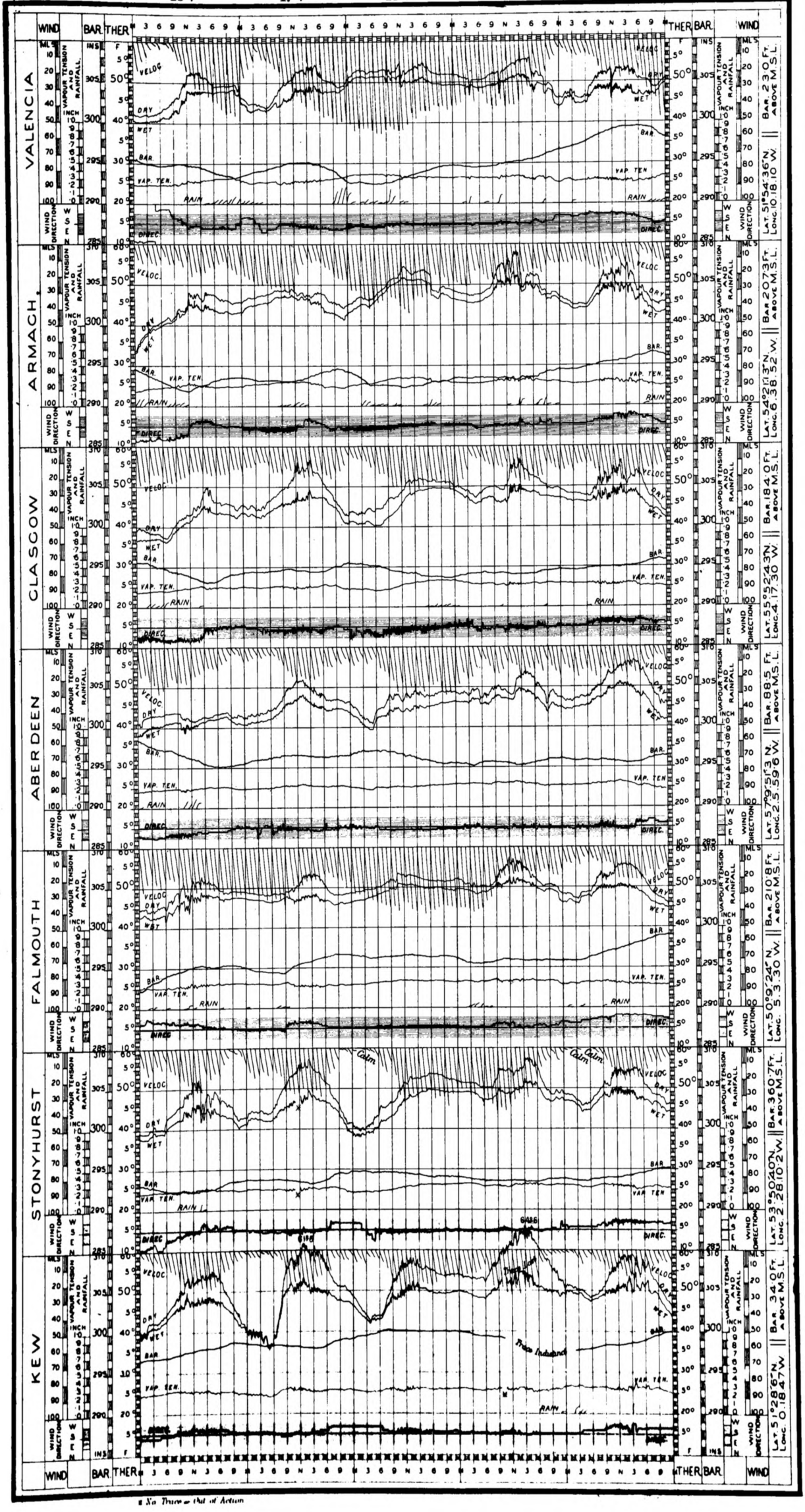


* No Trace = Out of Action

APRIL — 1880.

16TH 17TH 18TH 19TH 20TH

Plate XVII.

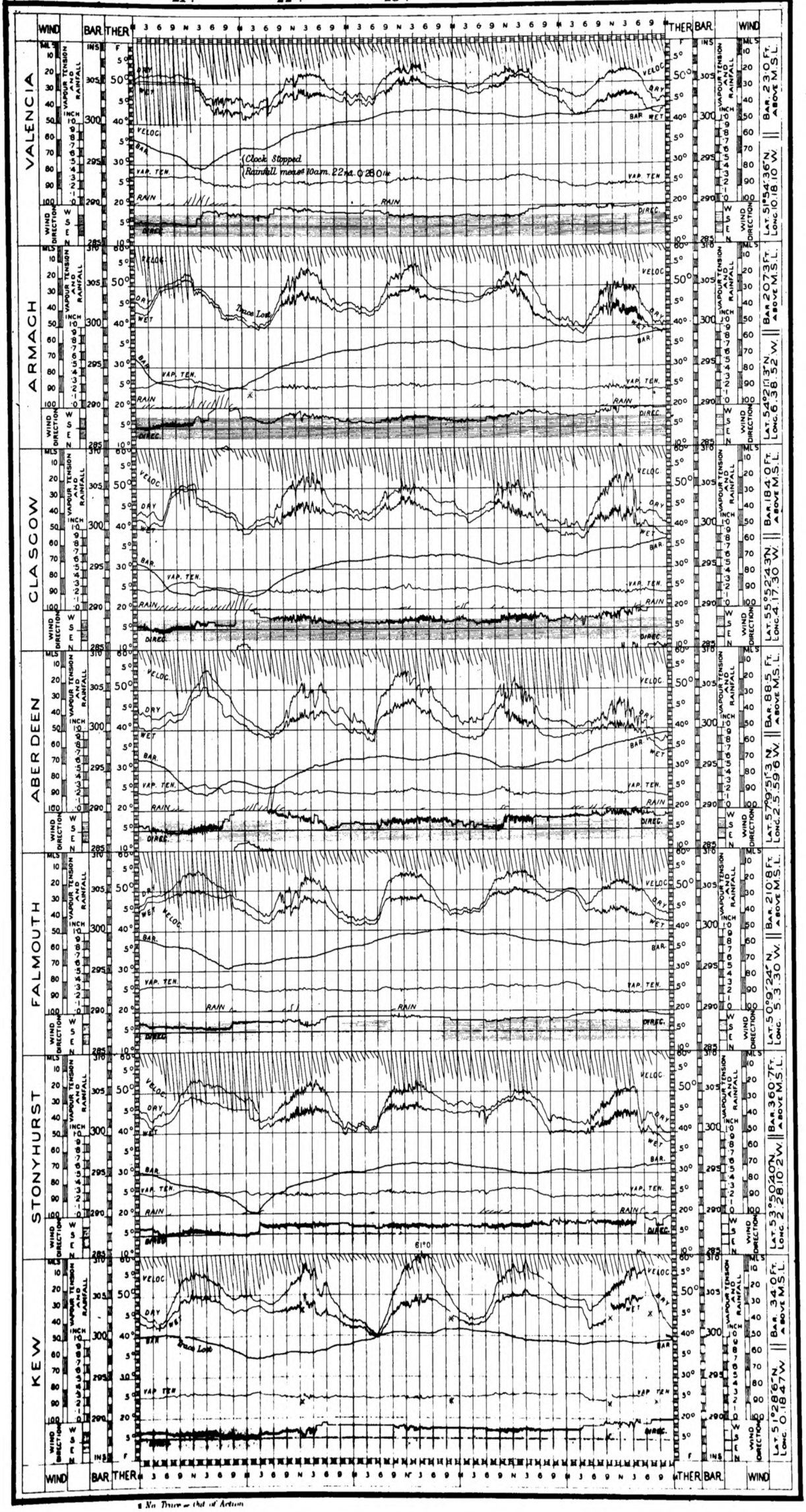


* Six Days out of Action

APRIL — 1880.

21ST 22ND 23RD 24TH 25TH

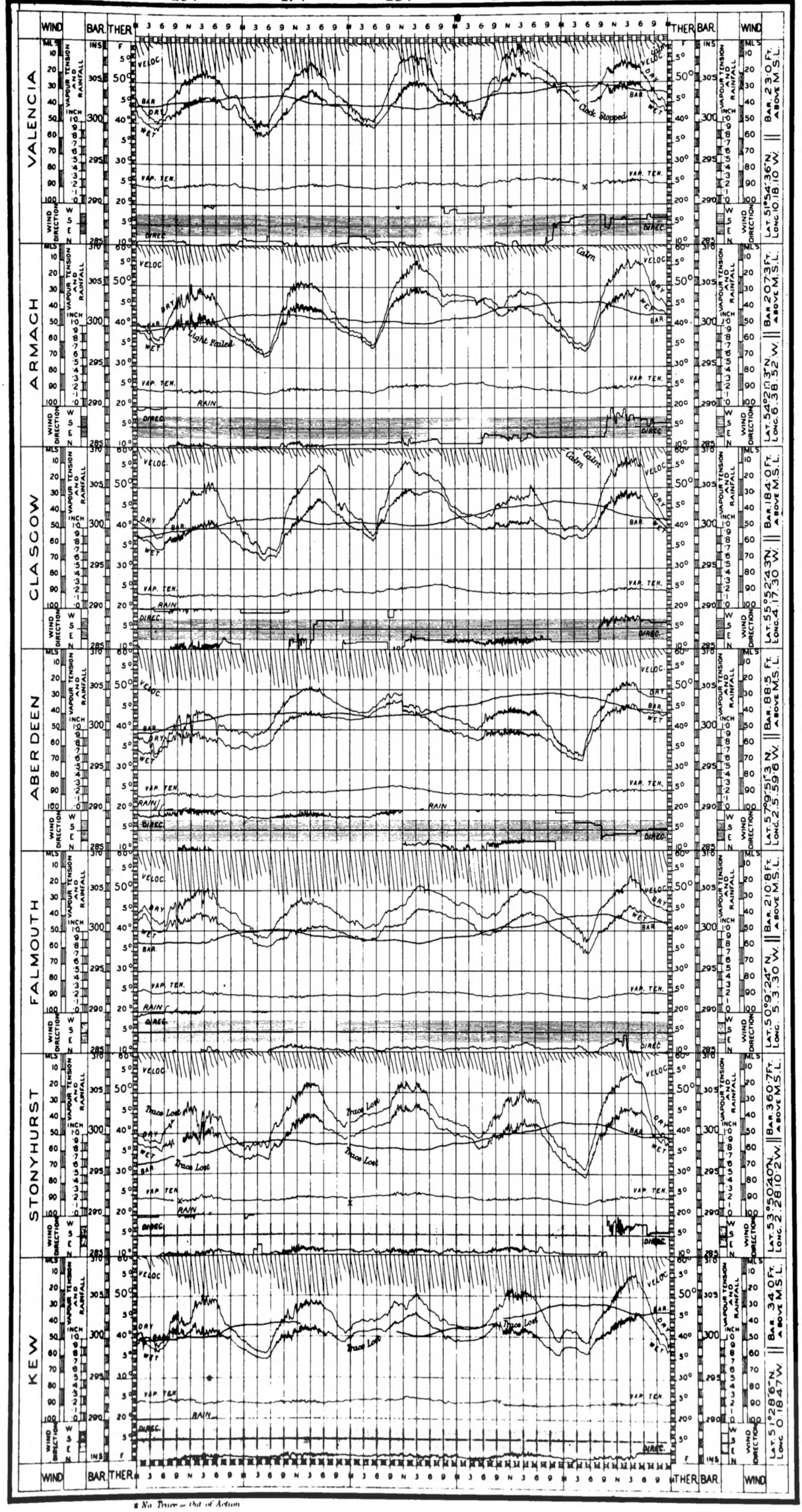
Plate XXIII.



* No Trace of that of Action

APRIL — 1880.

Plate XXIV.

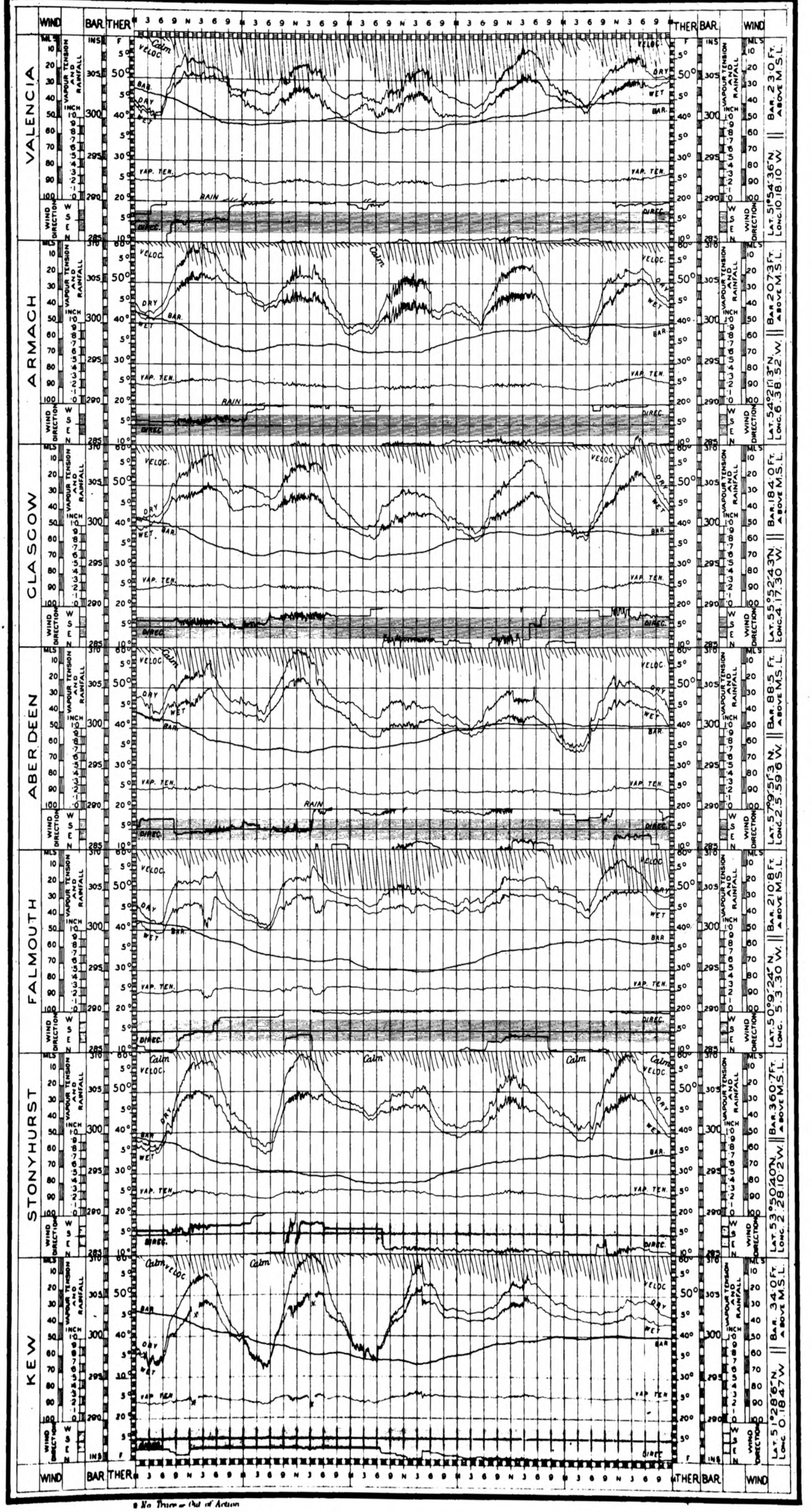


* No Trace or Out of Action

MAY — 1880.

1ST 2ND 3RD 4TH 5TH

Plate XXV.

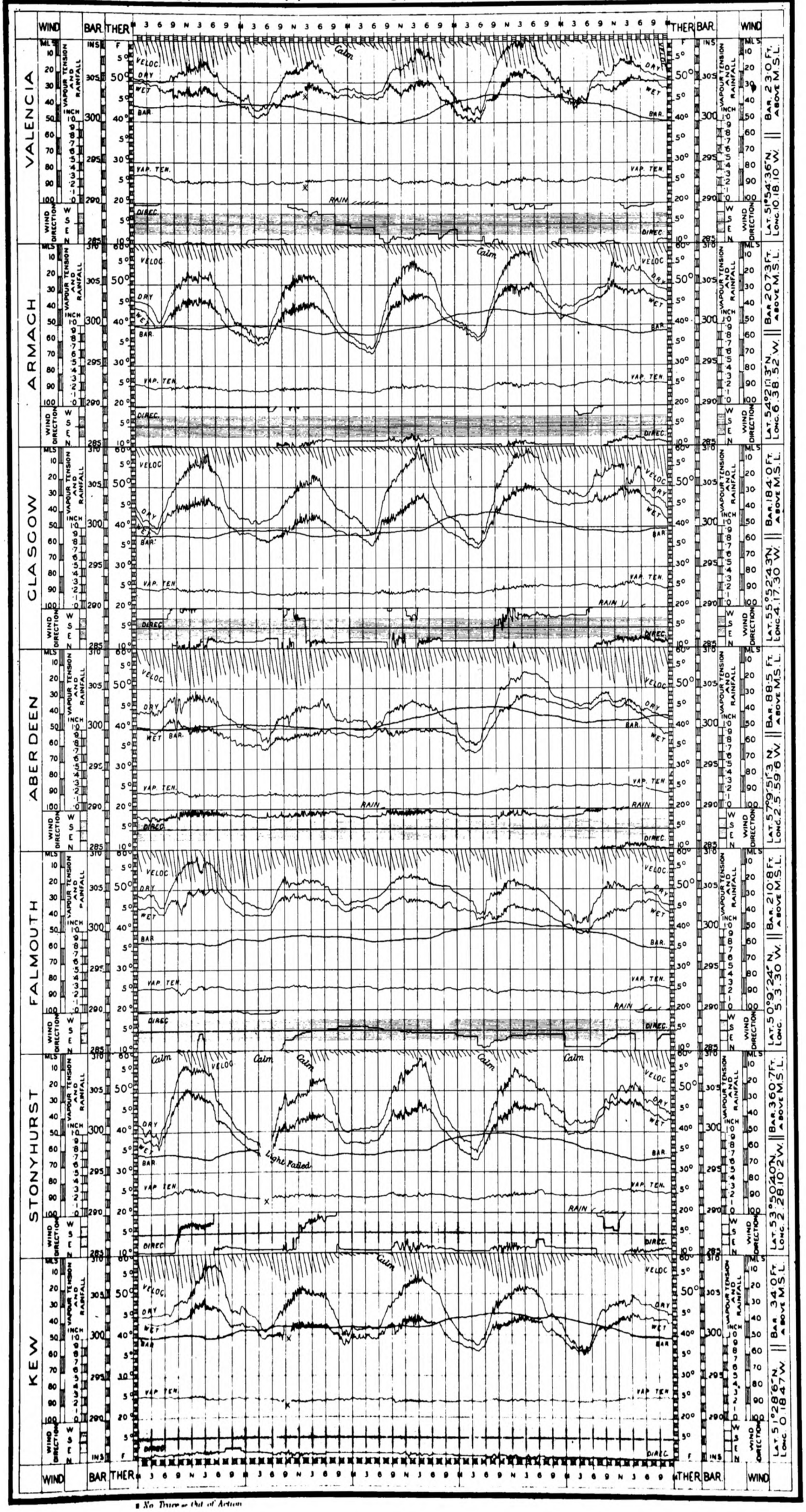


* No Trace = Out of Action

M A Y ___ 1 8 8 0.

6TH. 7TH. 8TH. 9TH. 10TH.

Plate XVI.

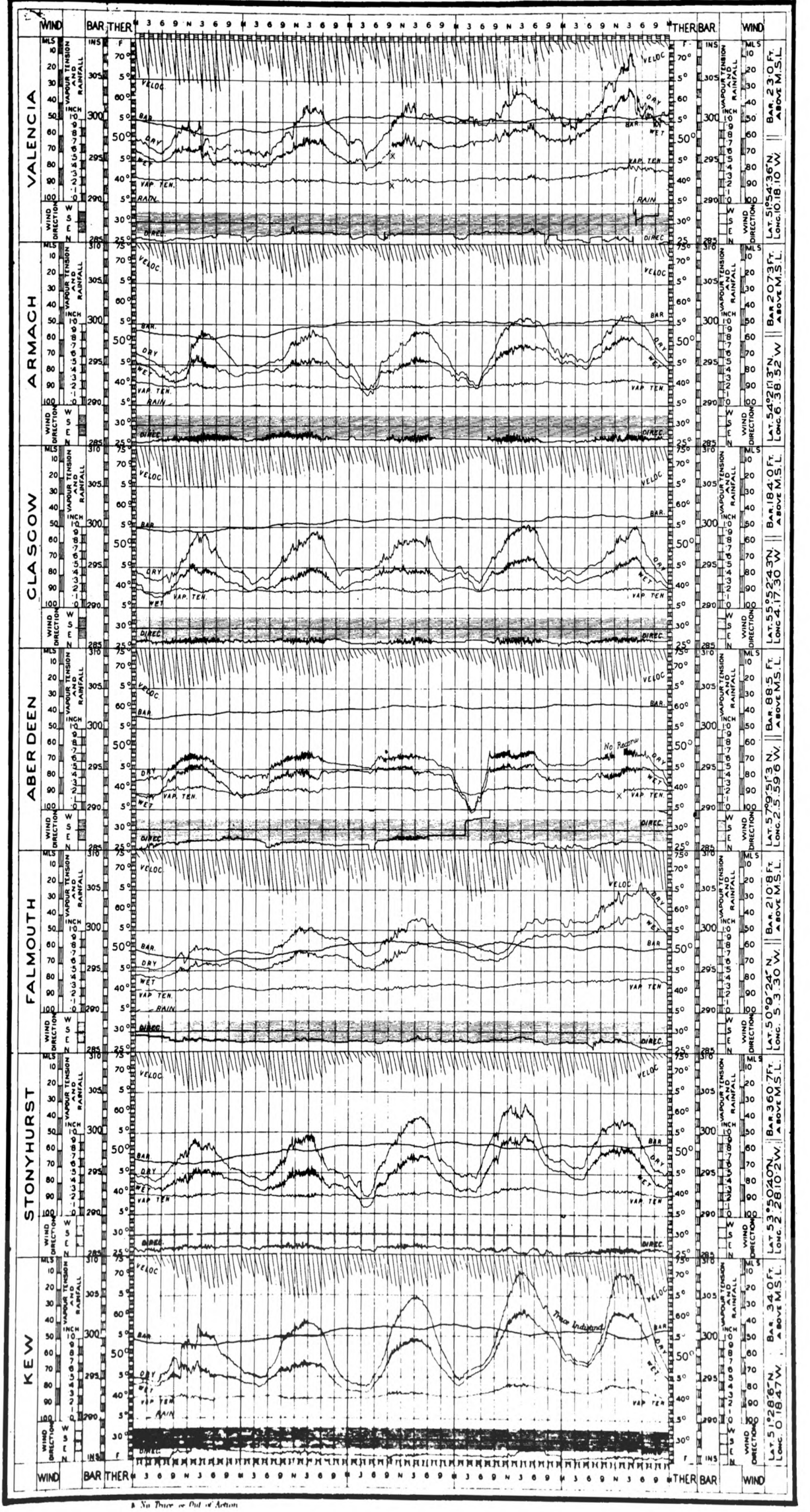


* No Trace or Out of Action

M A Y ___ 1 8 8 0.

11TH 12TH 13TH 14TH 15TH

Plate XXVII.

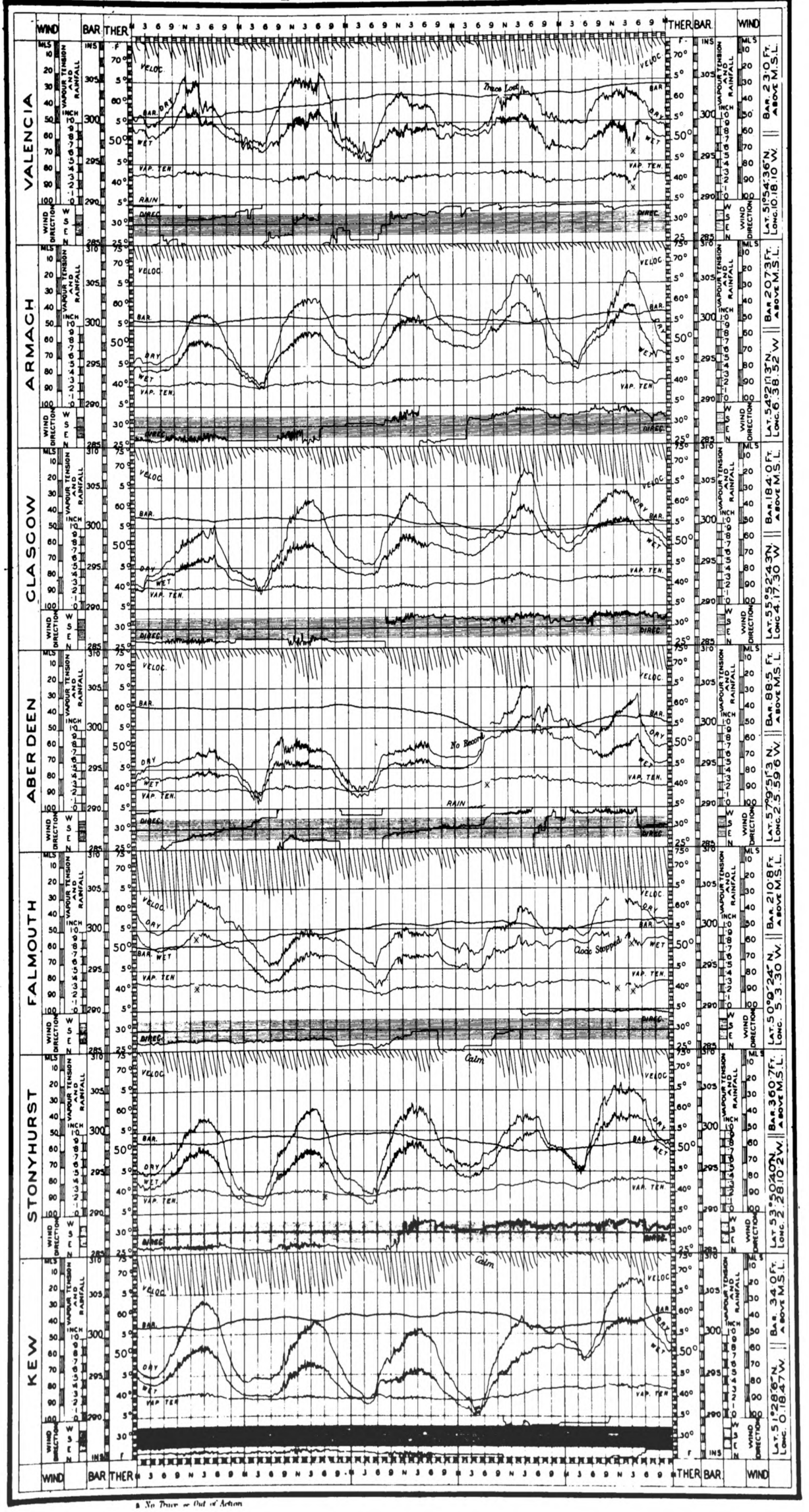


* No Trace or Out of Action

M A Y ___ 1 8 8 0.

16TH 17TH 18TH 19TH 20TH

Plate XVIII.

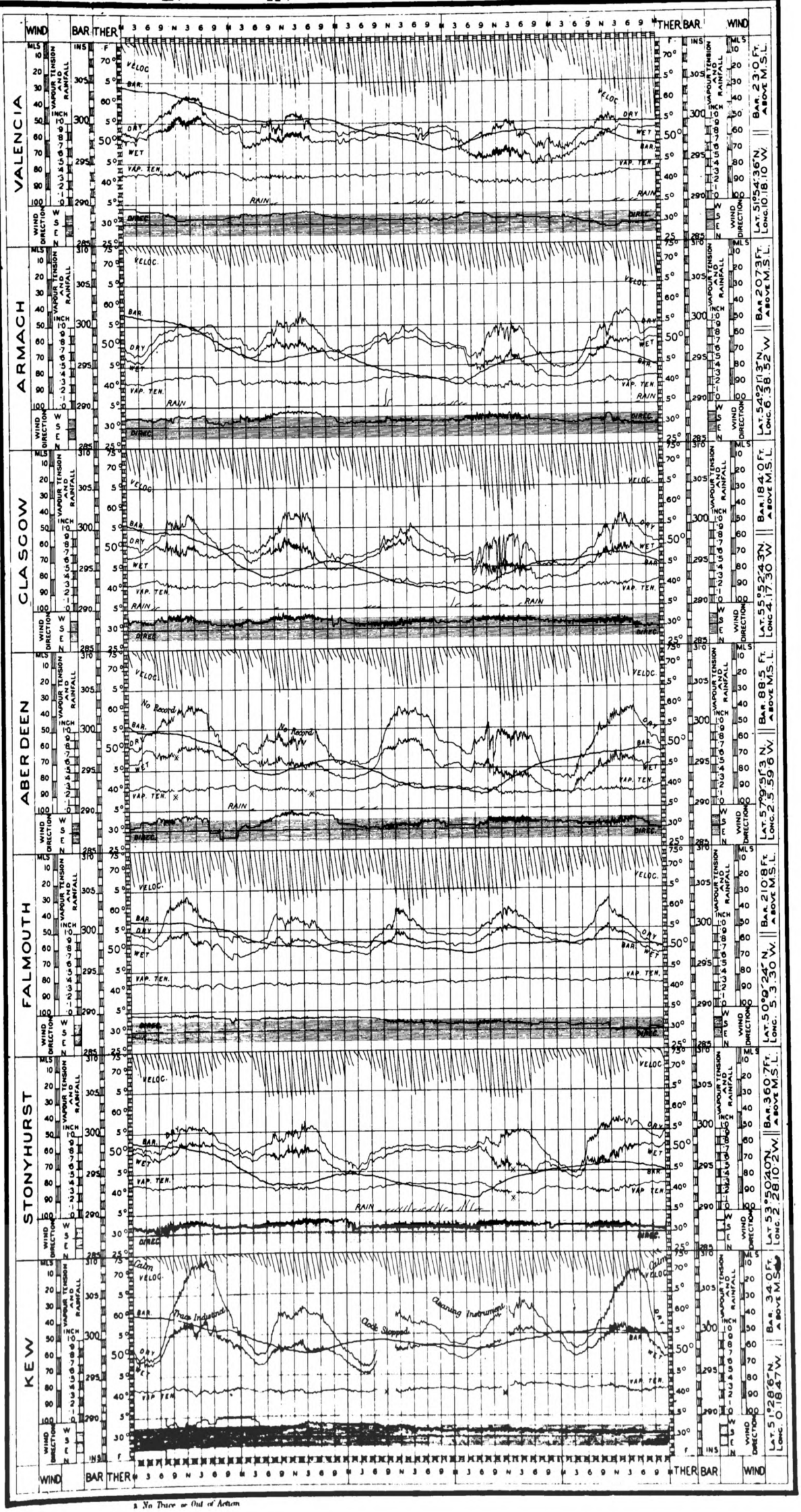


* No Trace or Out of Action

M A Y ___ 1 8 8 0.

21ST 22ND 23RD 24TH 25TH

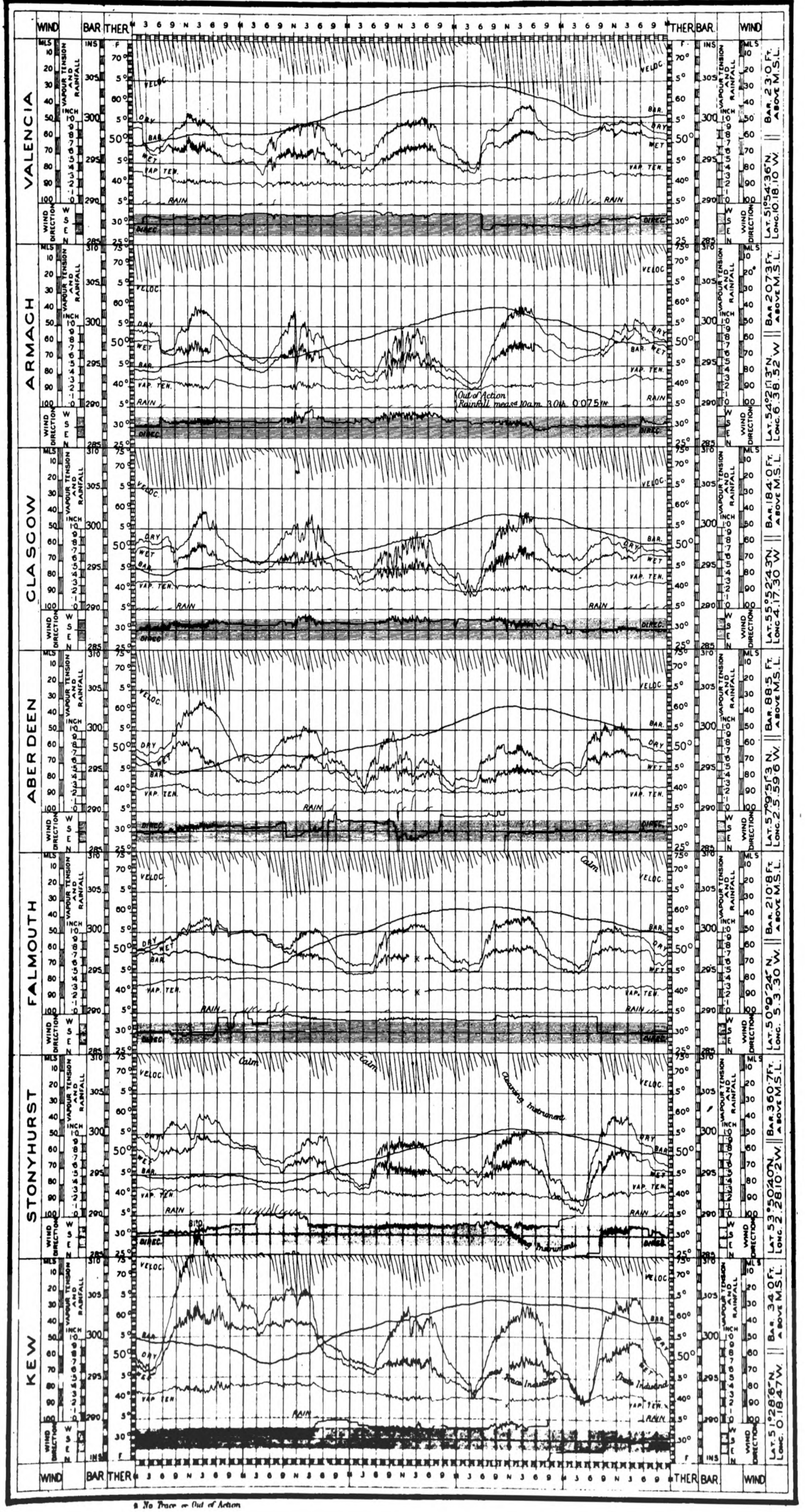
Plate XXIX.



a No Trace or Out of Action

M A Y — 1 8 8 0.

26TH 27TH 28TH 29TH 30TH Plate XXI.

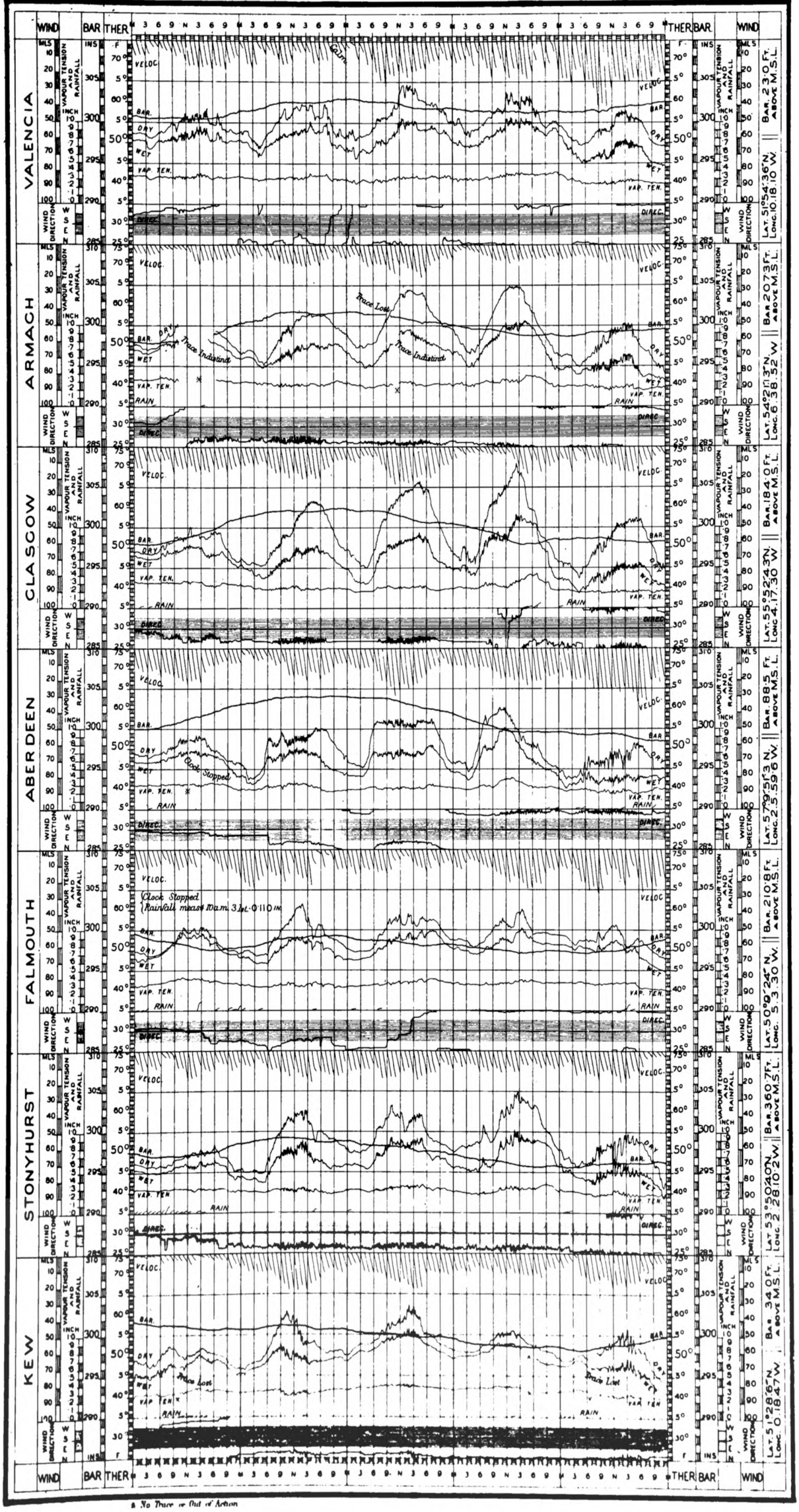


* No Trace or Out of Action

MAY & JUNE — 1880.

Plate XXV.

31ST | 1ST | 2ND | 3RD | 4TH

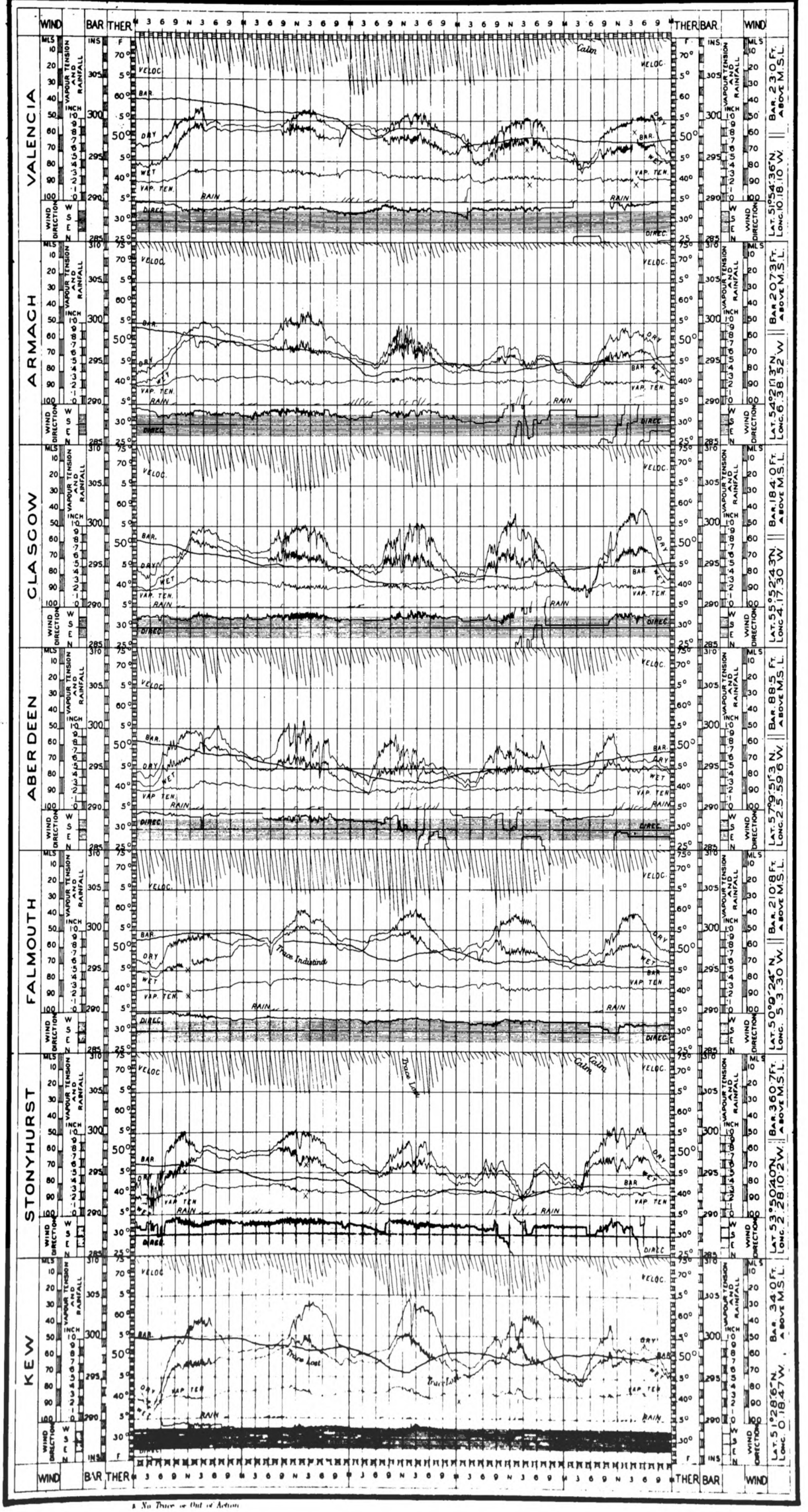


a No Trace or Out of Action

JUNE — 1880.

5TH 6TH 7TH 8TH 9TH

Plate XXXII.

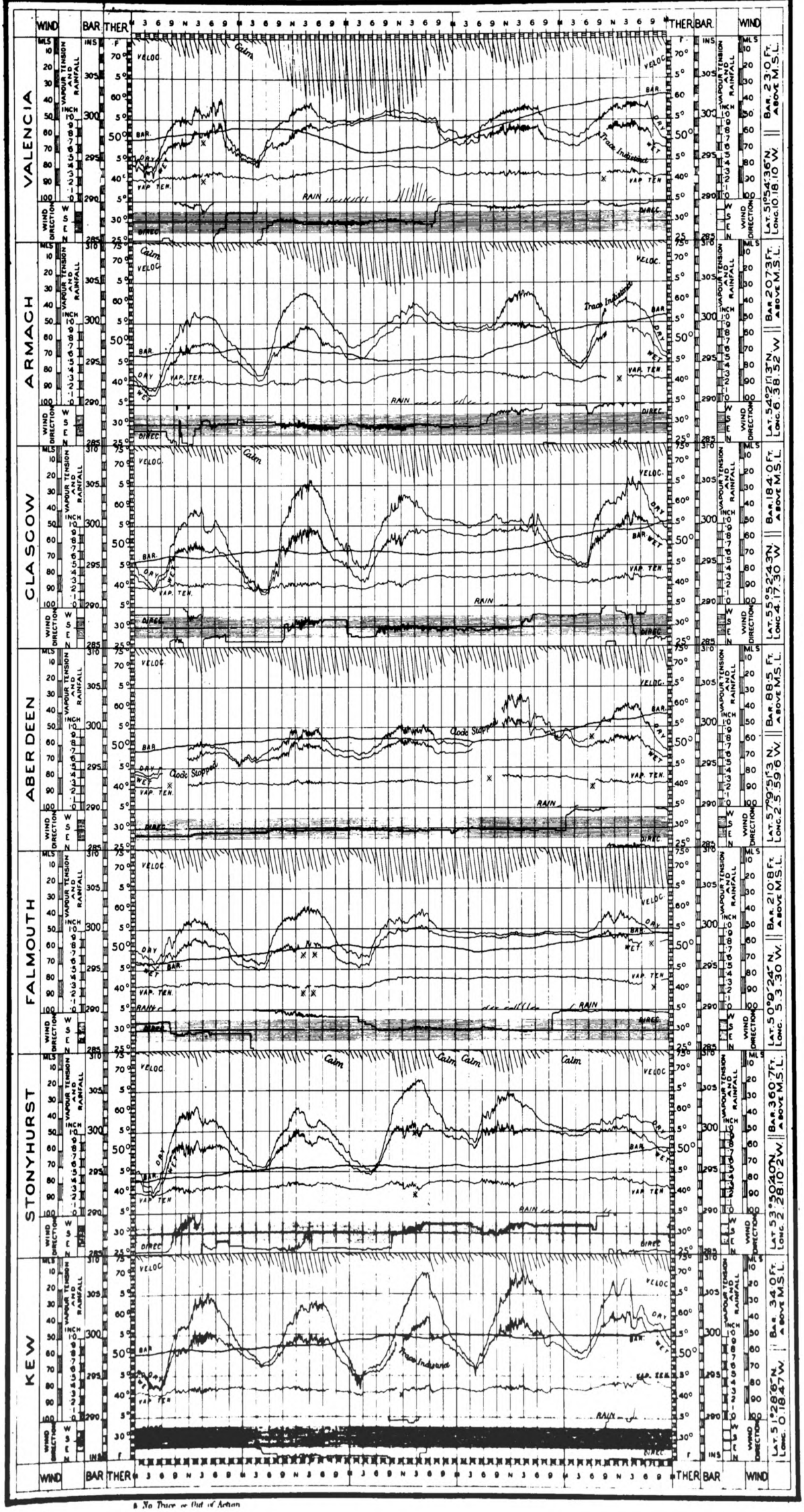


* No Trace or Out of Action

JUNE_1880.

10TH 11TH 12TH 13TH 14TH

Plate XXXIII.

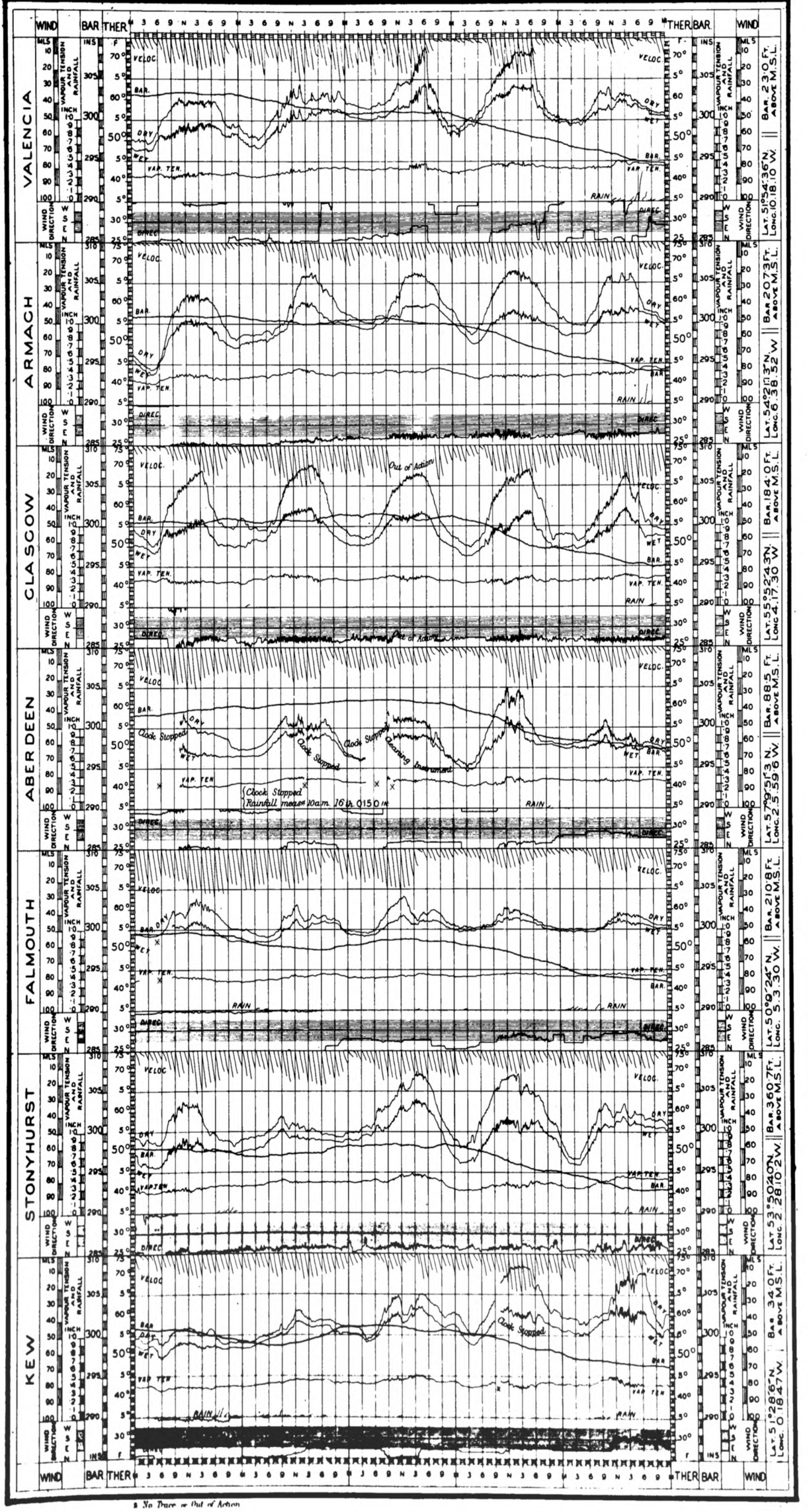


§ No Trace or Out of Action.

JUNE — 1880.

15TH 16TH 17TH 18TH 19TH

Plate XXIV.

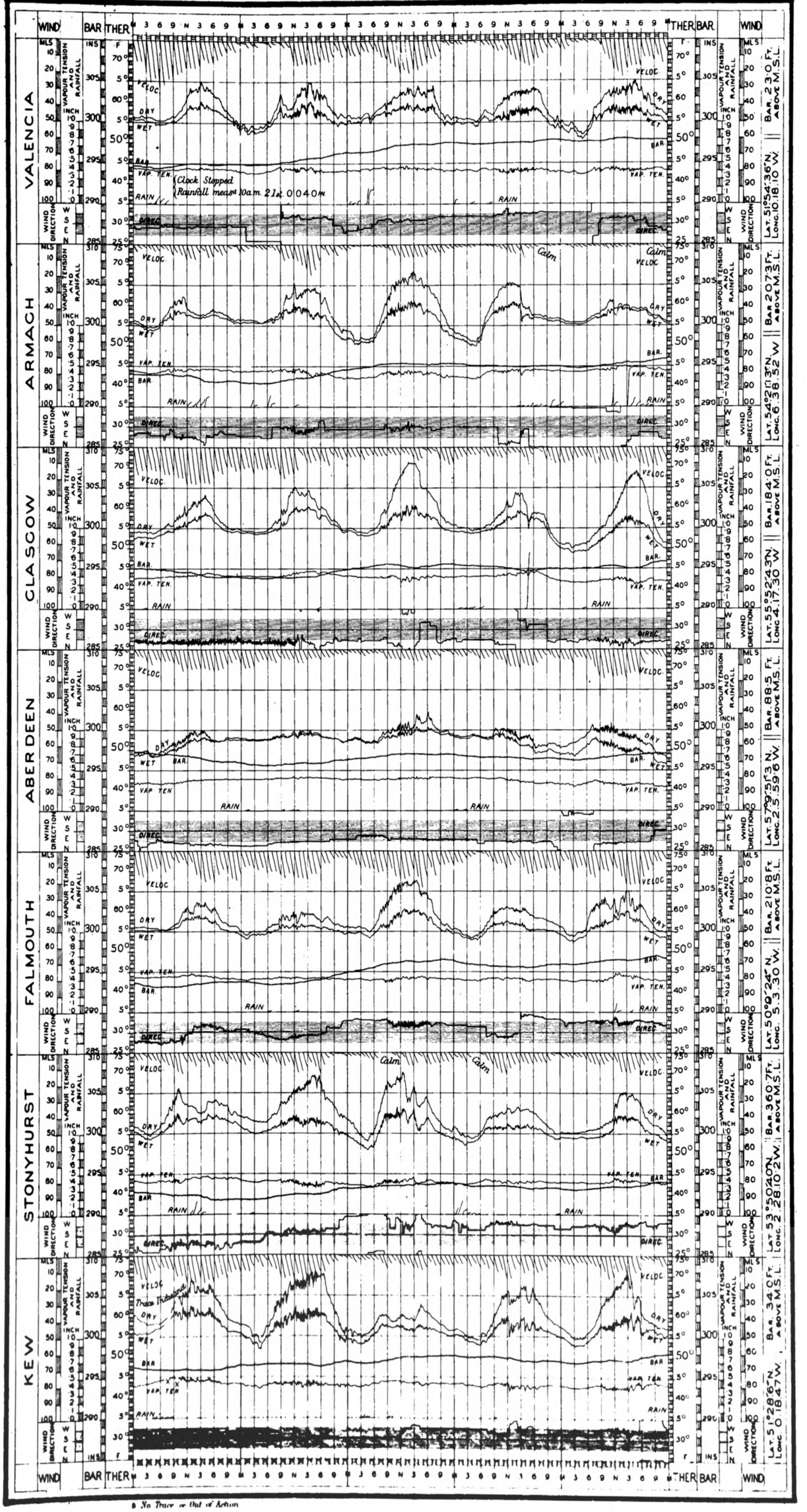


‖ No Trace or Out of Action

JUNE 1880.

20TH 21ST 22ND 23RD 24TH

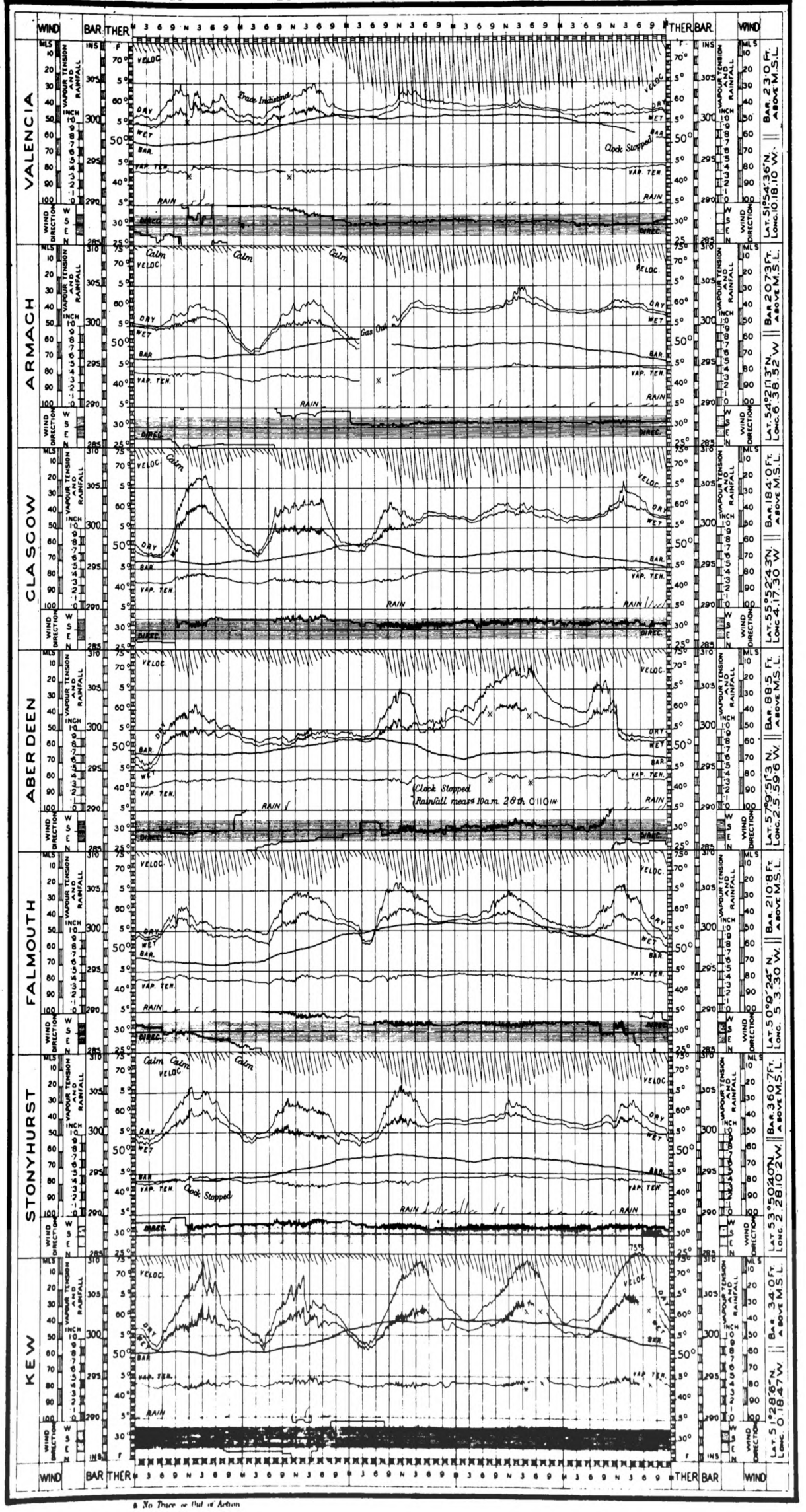
Plate XXIV.



* No Trace or Out of Action

JUNE — 1880.

25TH 26TH 27TH 28TH 29TH

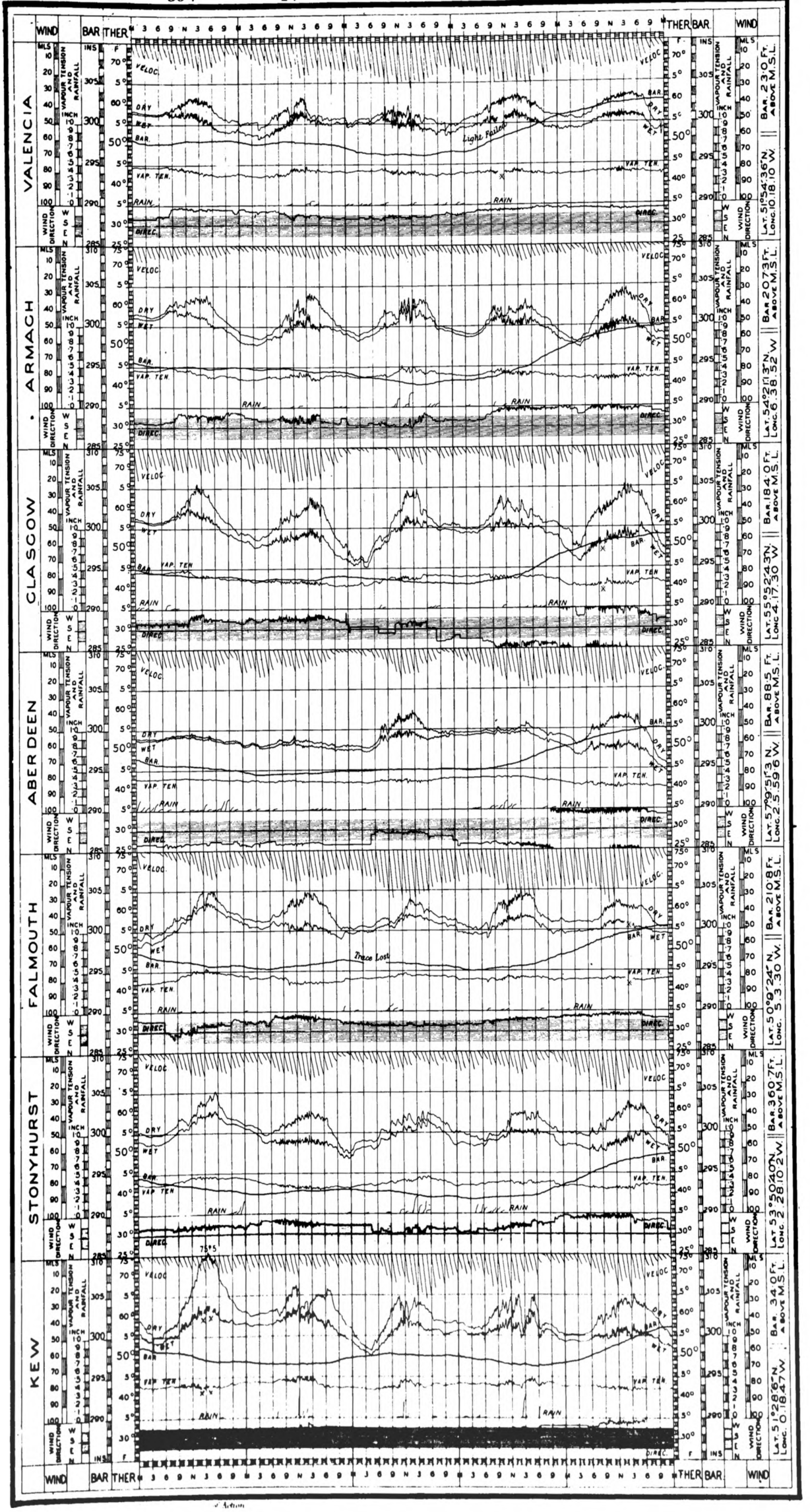


* No Trace or Out of Action

JUNE & JULY_1880.

30TH 1ST 2ND 3RD 4TH

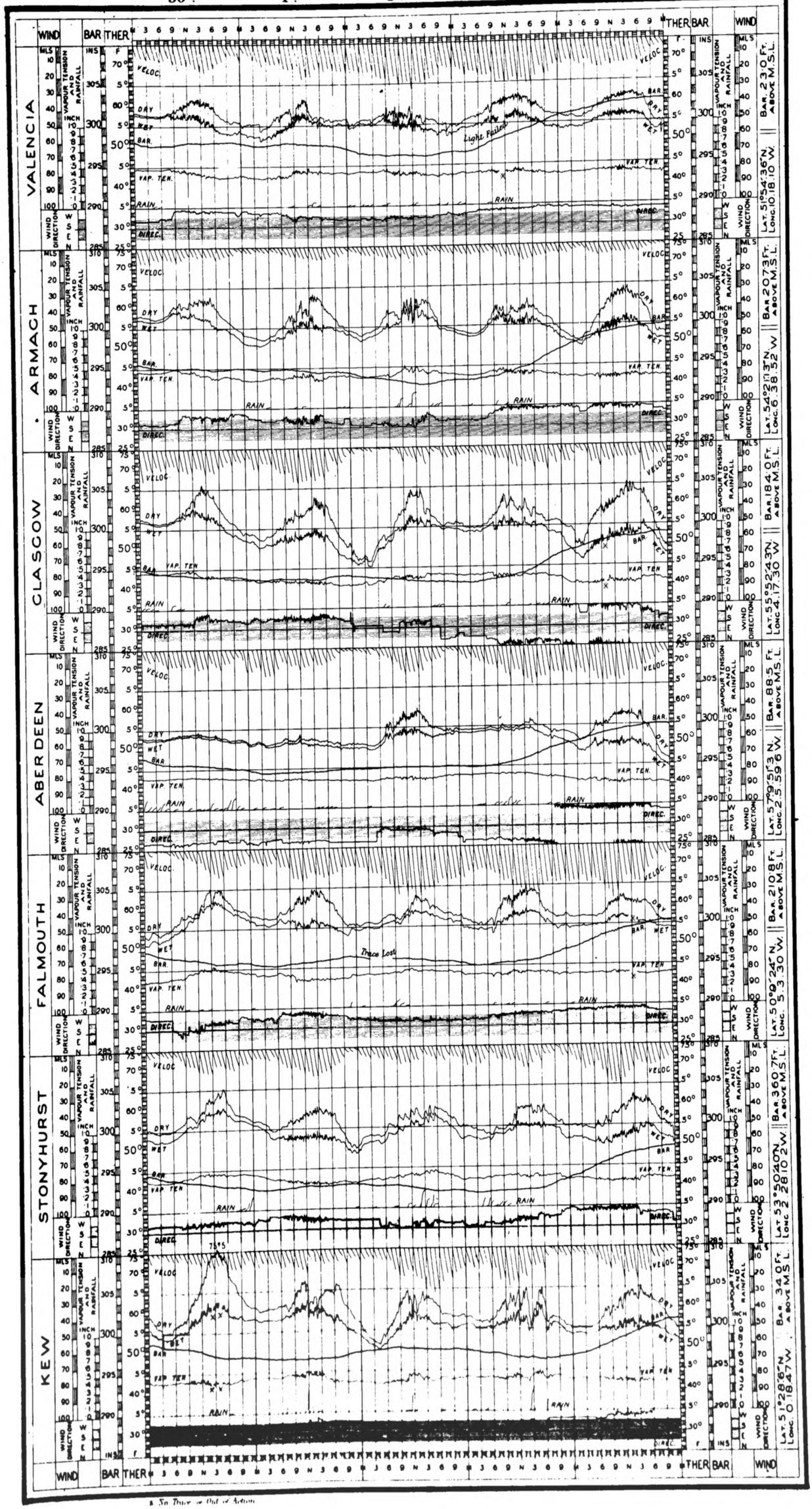
Plate XXXVII.



JUNE & JULY_1880.

30TH 1ST 2ND 3RD 4TH

Plate XXXVII.

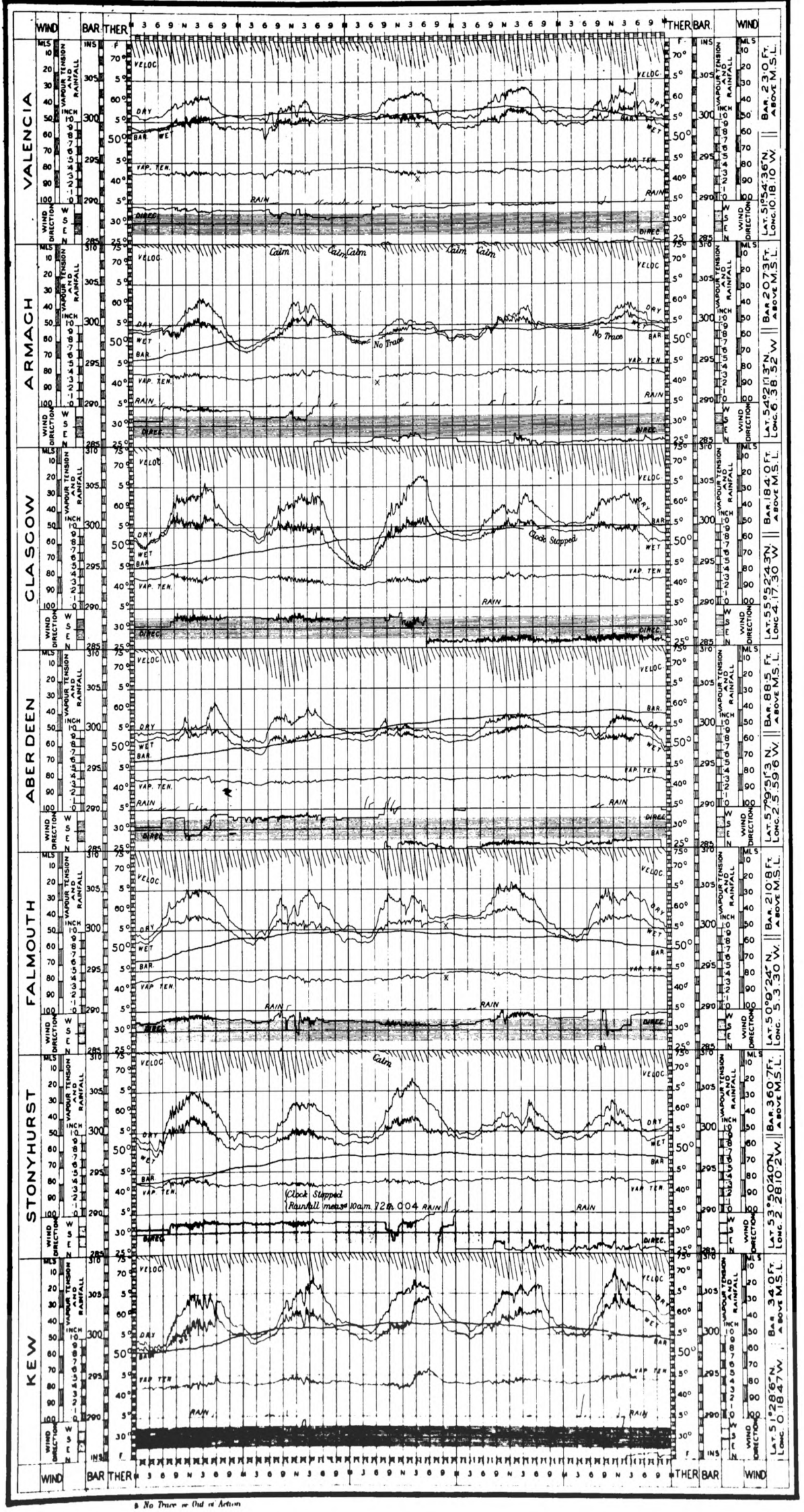


* See Diary in Out of Action

JULY — 1880.

10TH 11TH 12TH 13TH 14TH

Plate XXXIX.

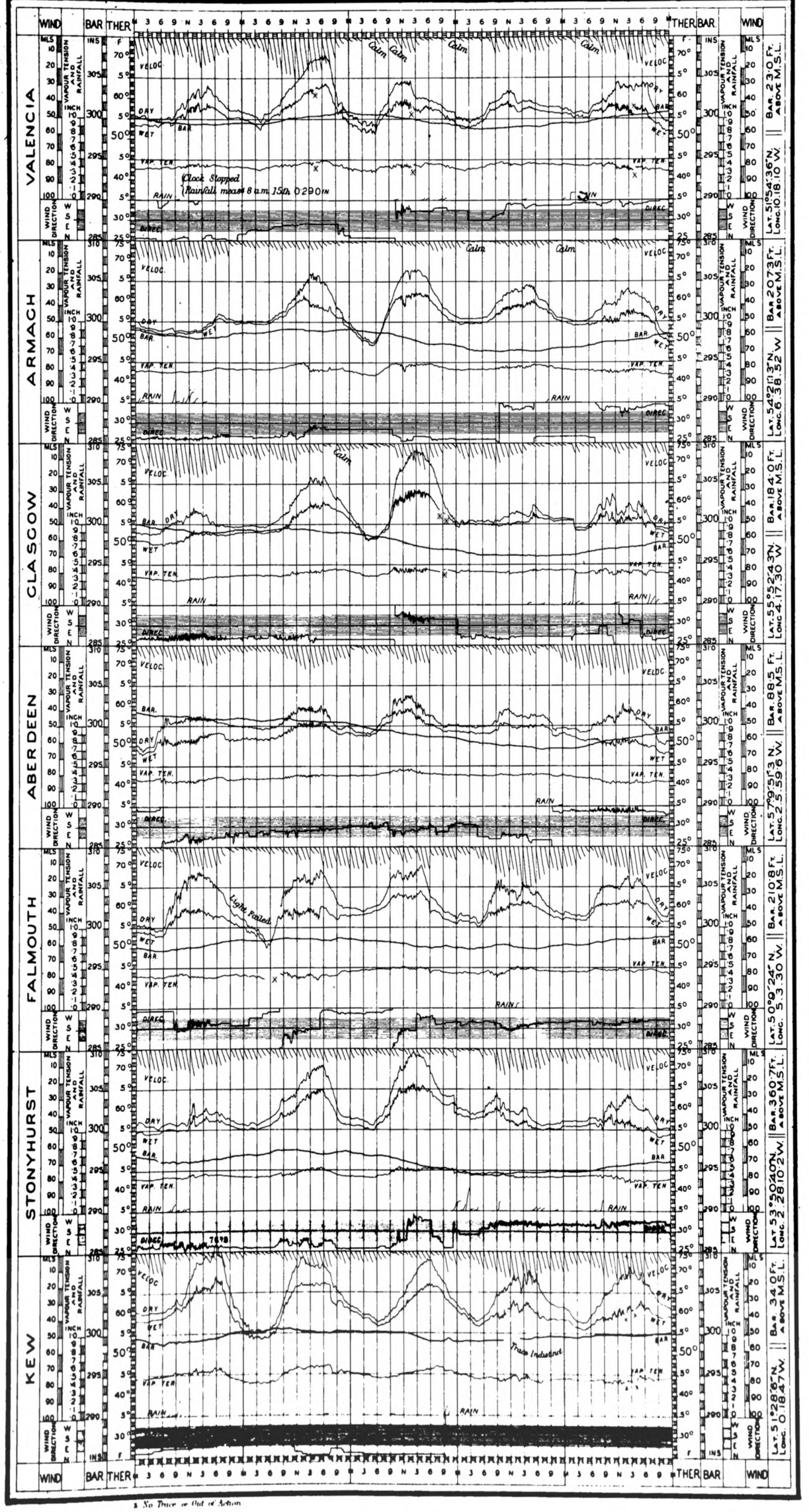


a No Trace or Out of Action

JULY — 1880.

15TH 16TH 17TH 18TH 19TH

Plate XL.

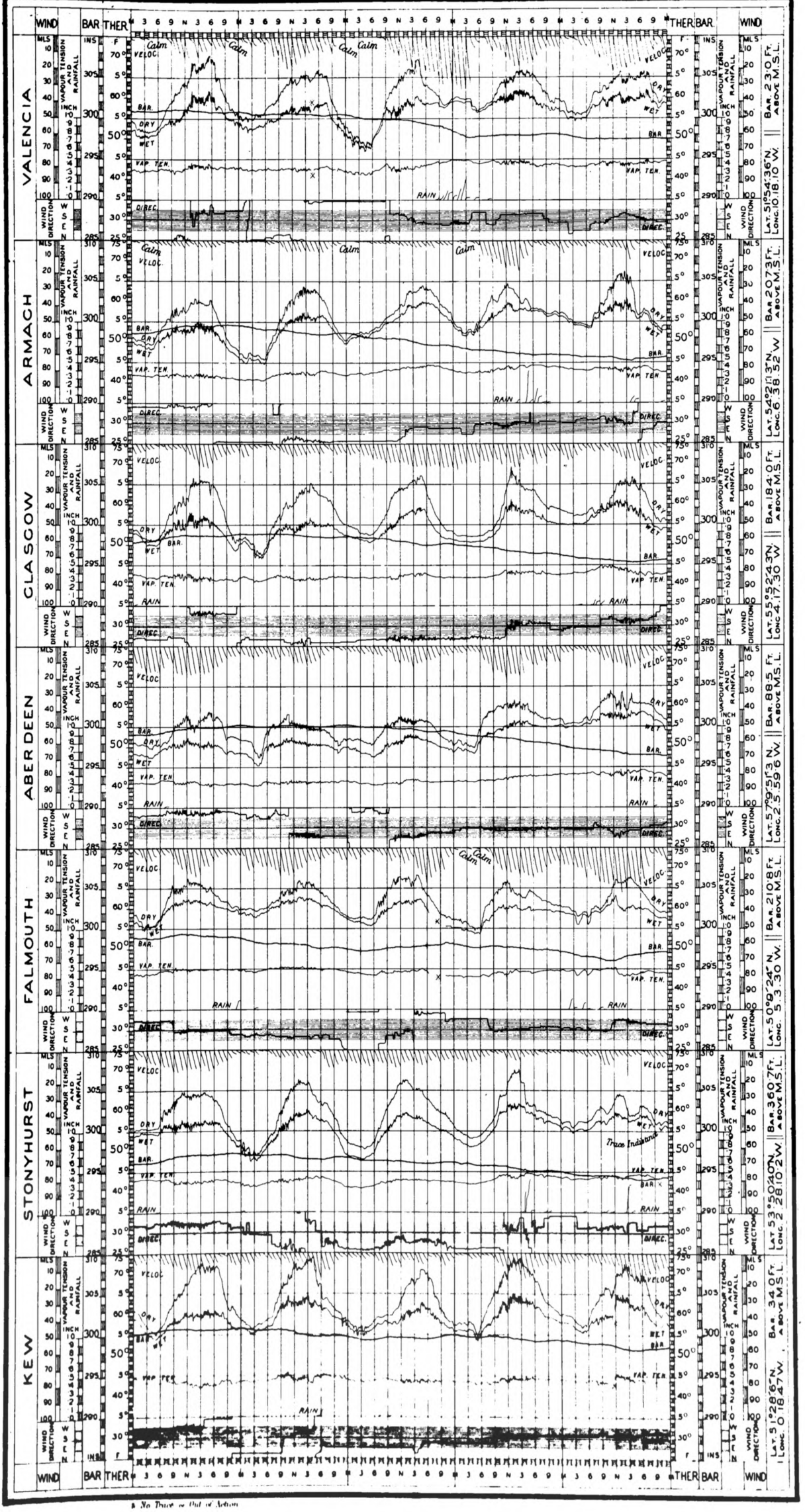


* No Trace or Out of Action

JULY — 1880.

Plate XLI.

20TH	21ST	22ND	23RD	24TH

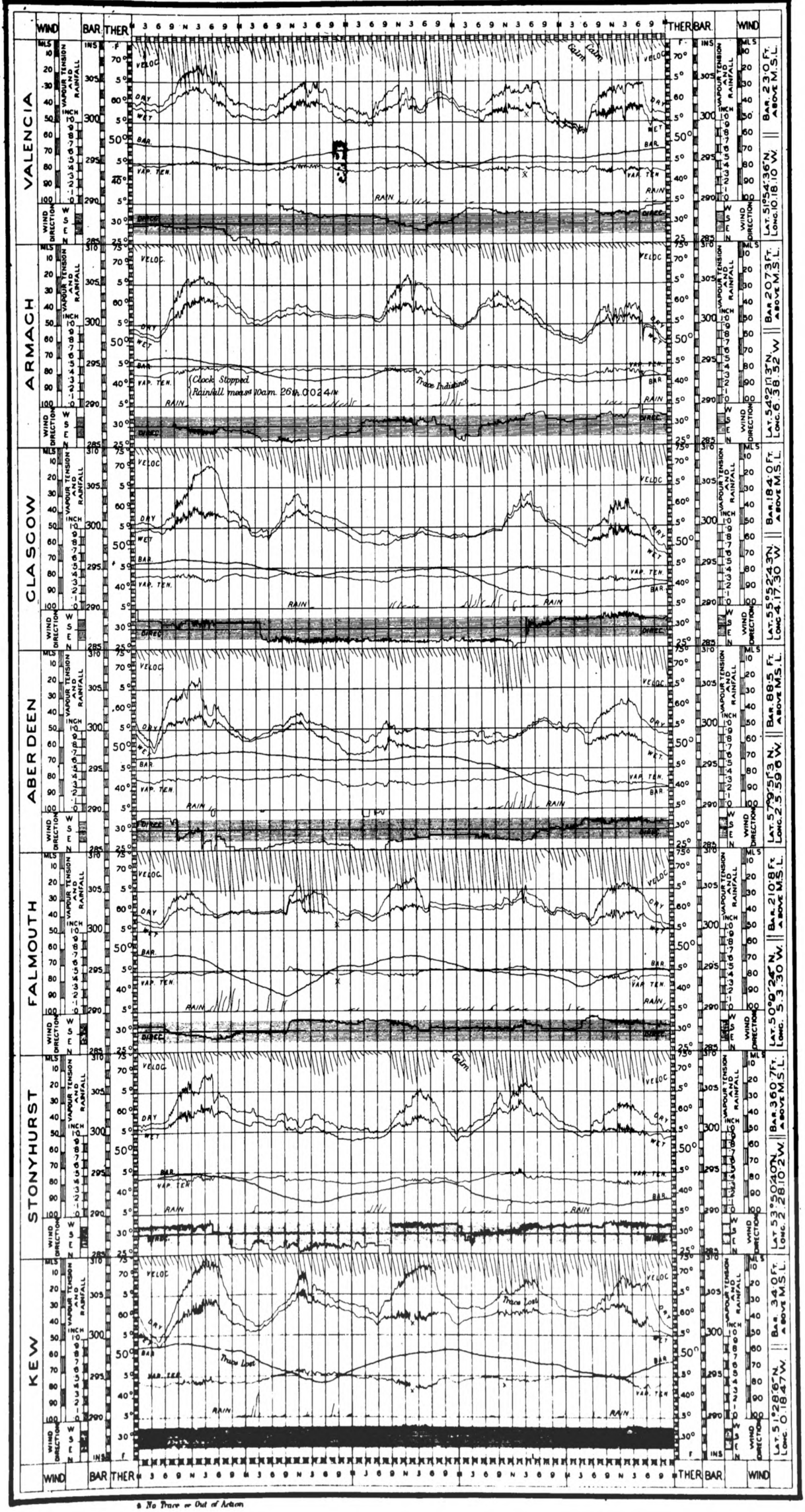


* No Trace or Out of Action

JULY — 1880.

25TH 26TH 27TH 28TH 29TH

Plate XIII.

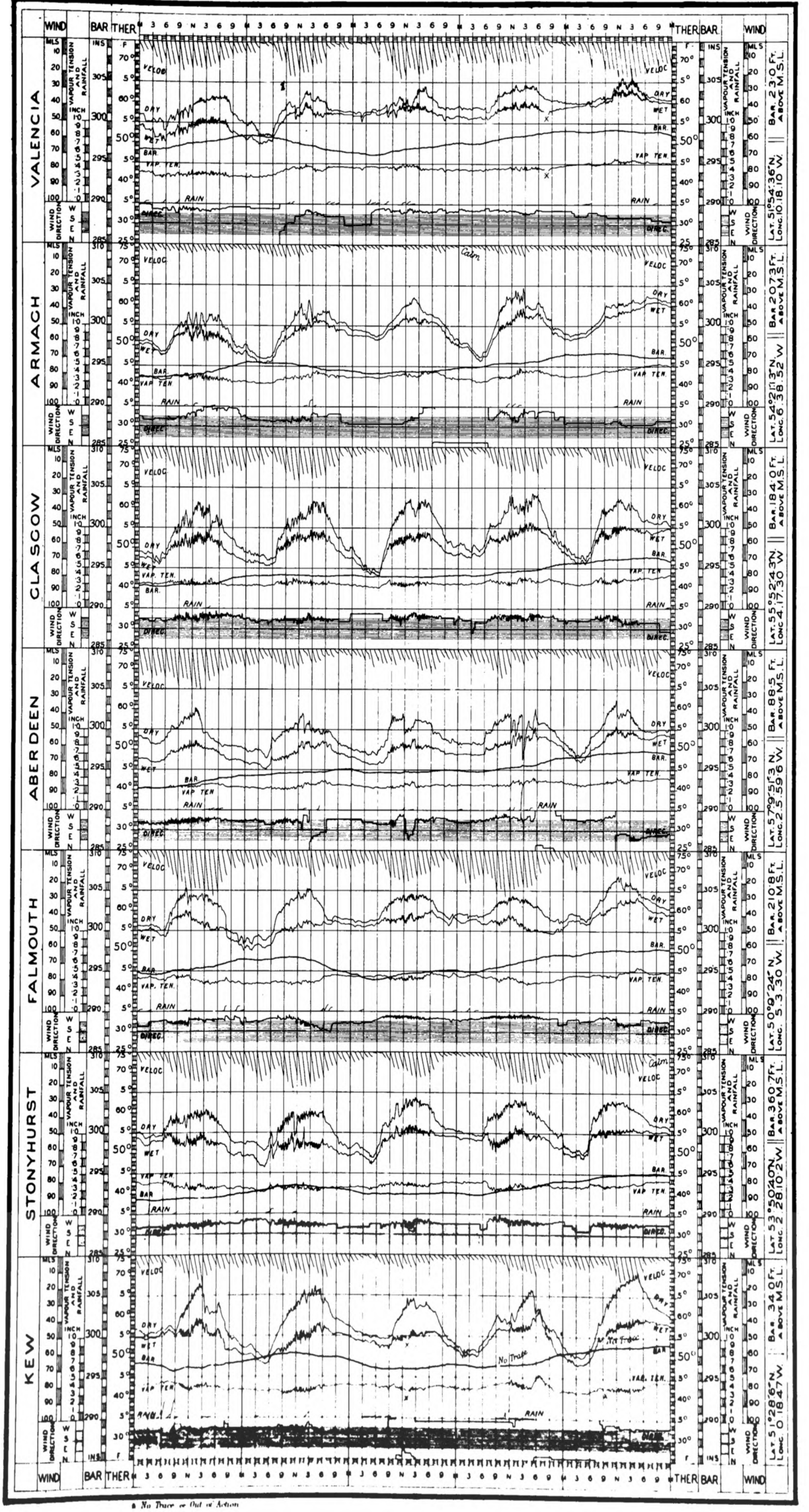


§ No Trace or Out of Action

JULY & AUGUST — 1880.

30TH 31ST 1ST 2ND 3RD

Plate XIII.

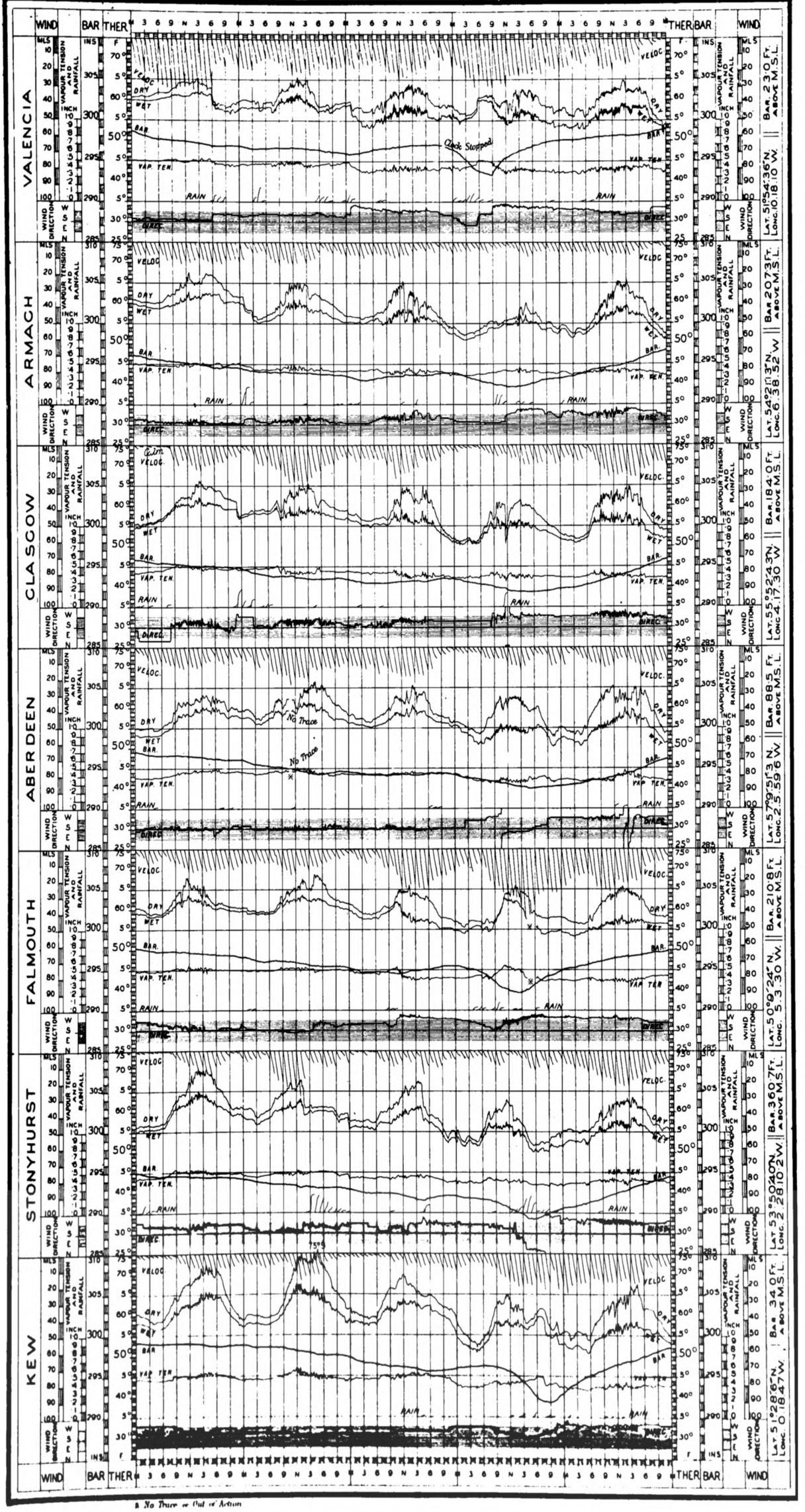


a No Trace or Out of Action

AUGUST — 1880.

4TH 5TH 6TH 7TH 8TH

Plate XLIV.

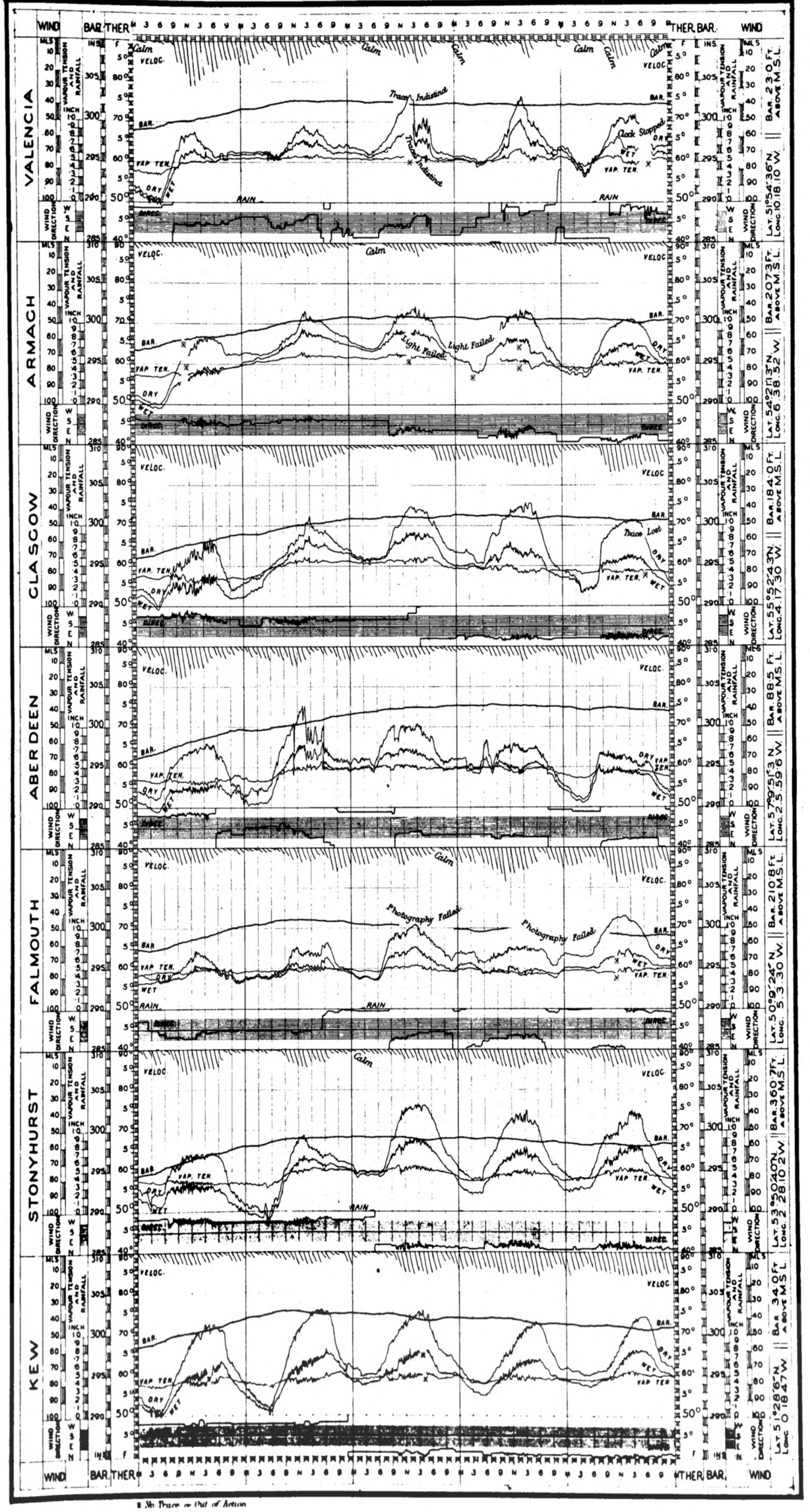


a No Trace or Out of Action

AUGUST — 1880.

9TH 10TH 11TH 12TH 13TH

Plate XIV.

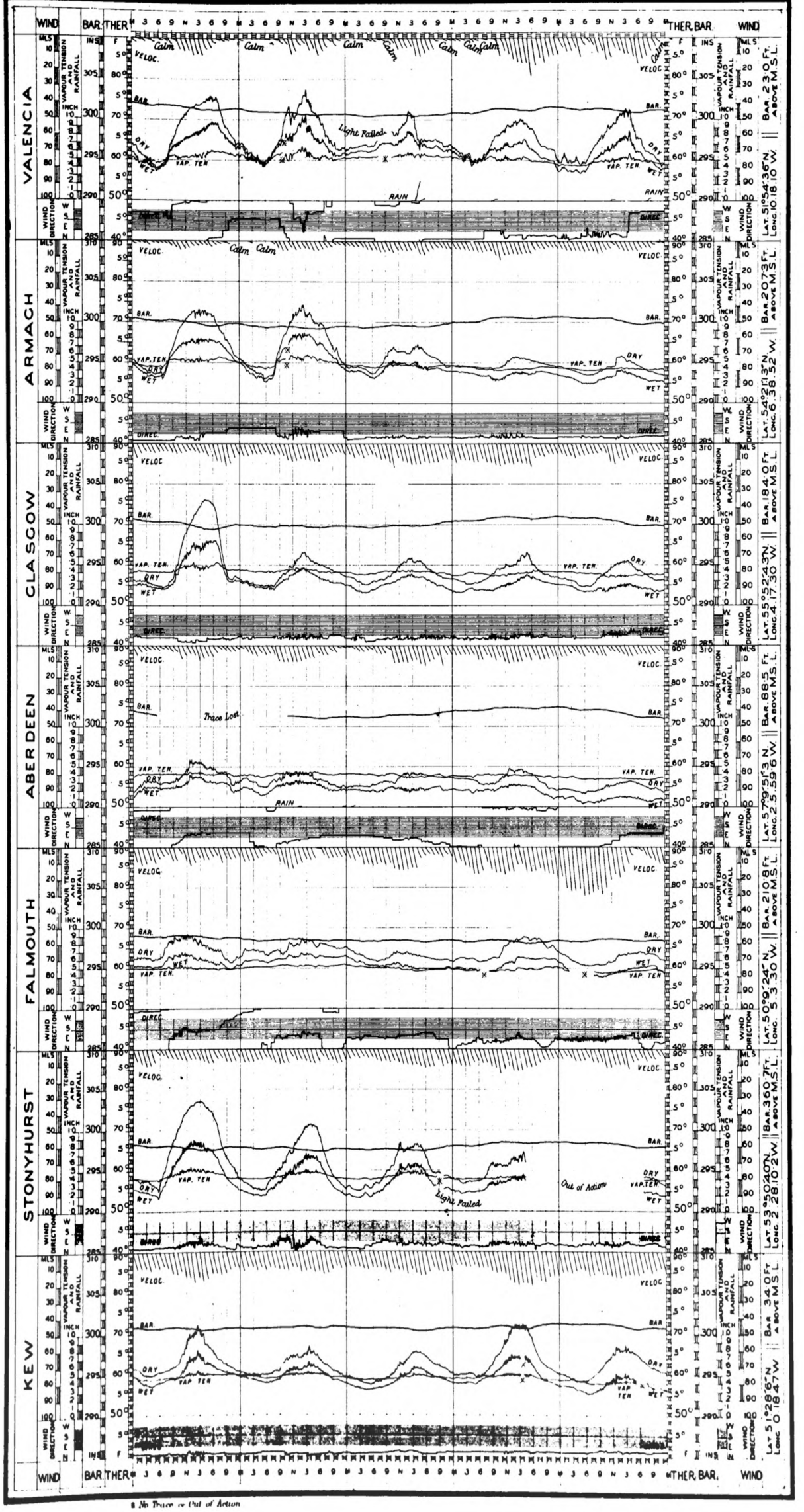


1 No Trace or Out of Action

AUGUST — 1880.

Plate XLVI

14TH 15TH 16TH 17TH 18TH



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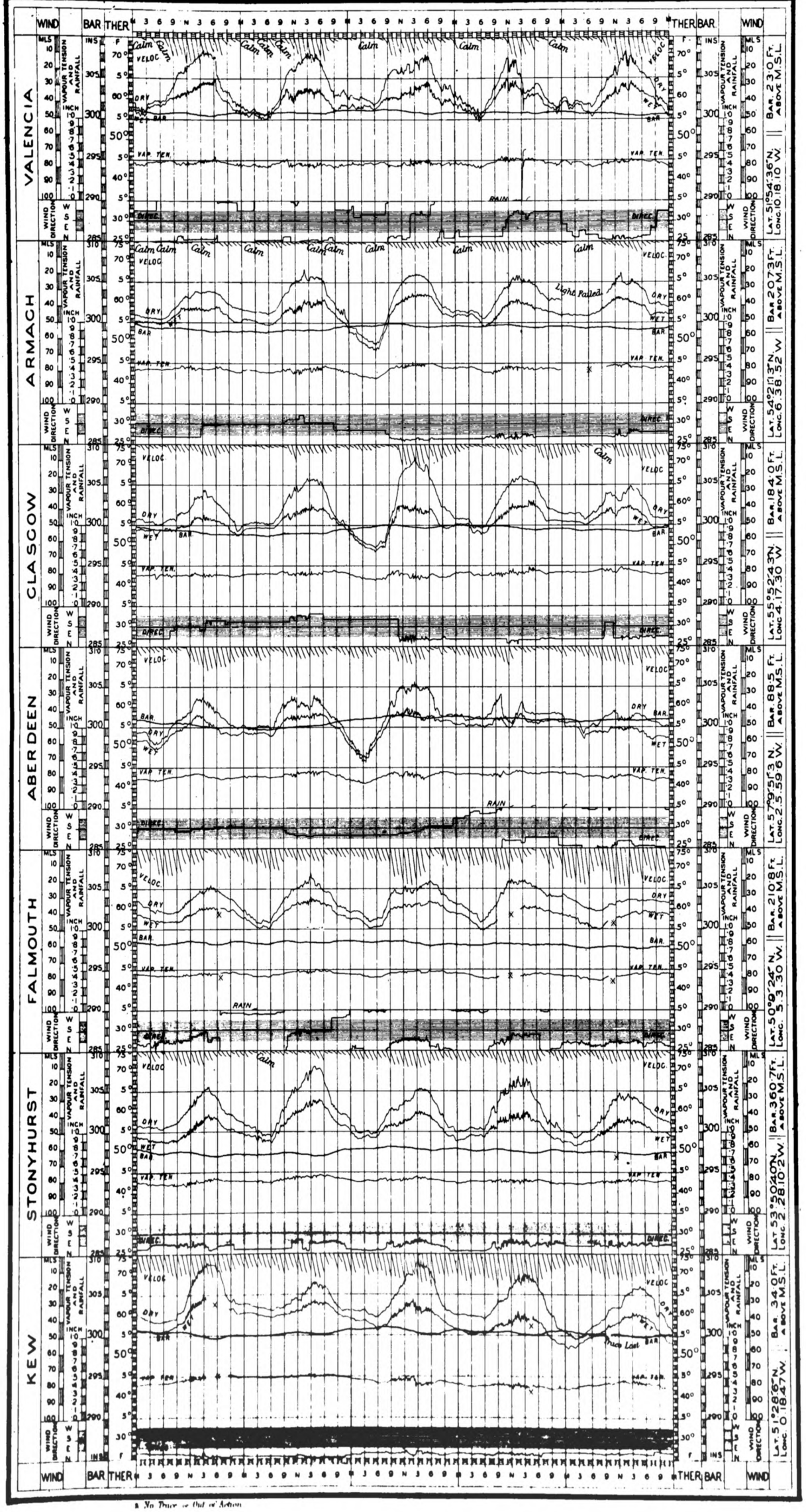
AUGUST — 1880.

19TH 20TH 21ST 22ND 23RD

Plate XLVII.



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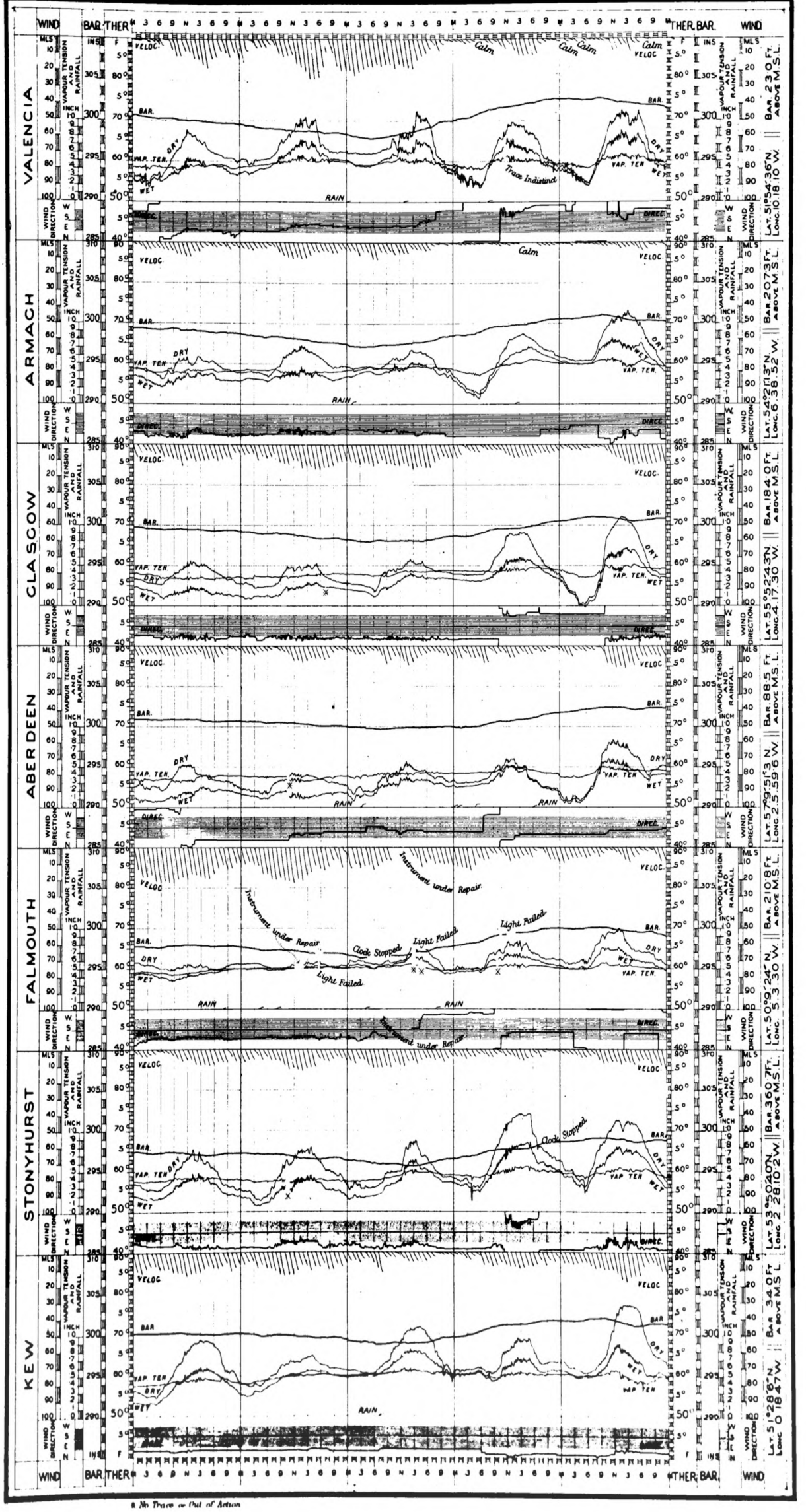
AUGUST — 1880.

24TH 25TH 26TH 27TH 28TH

Plate XLVIII.



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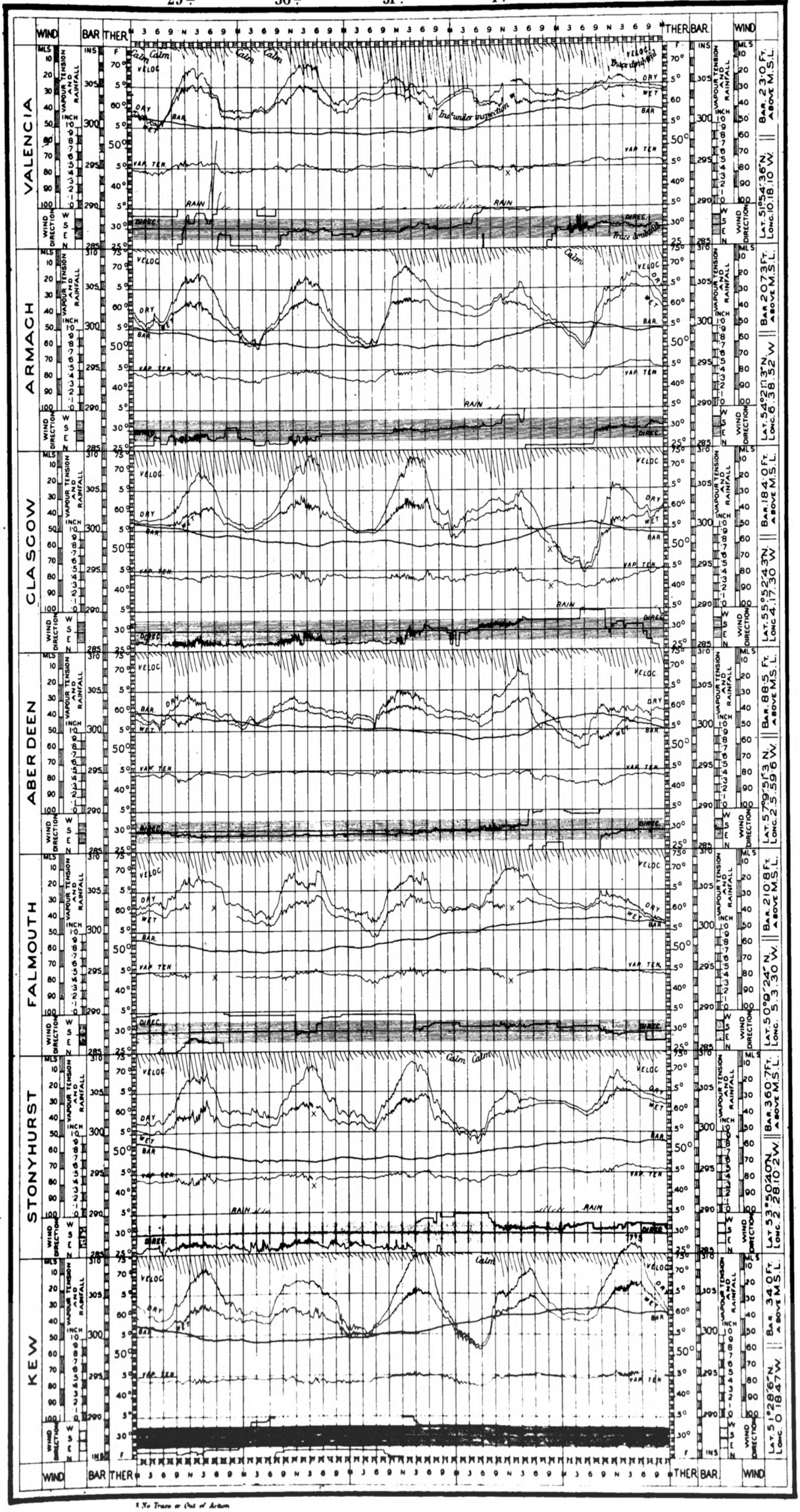
AUGUST & SEPTEMBER.—1880

29TH 30TH 31ST 1ST 2ND

Plate XLIX.

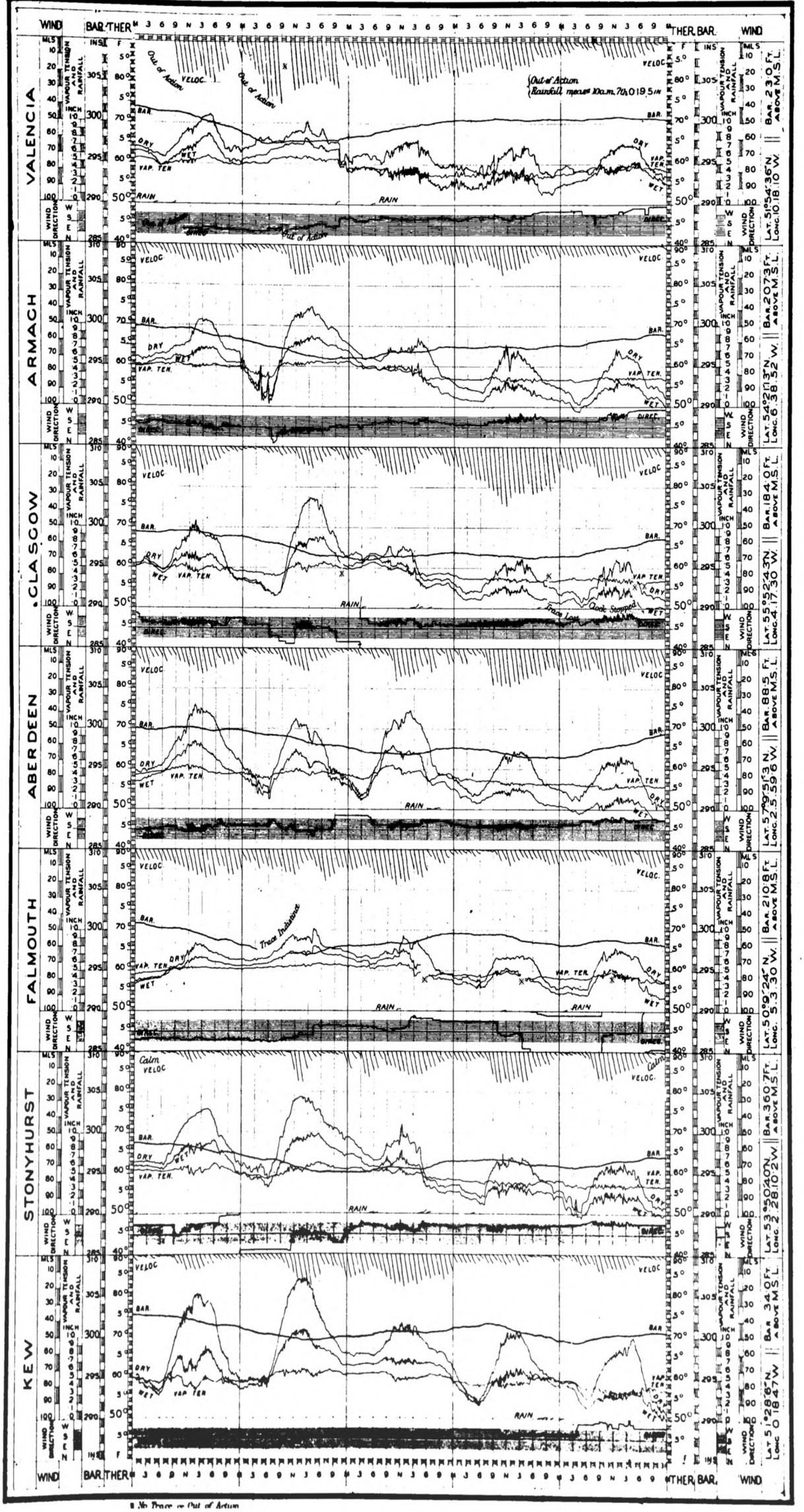


1. No Trace or Out of Action

S E P T E M B E R — 1 8 8 0.

3RD 4TH 5TH 6TH 7TH

Plate I.



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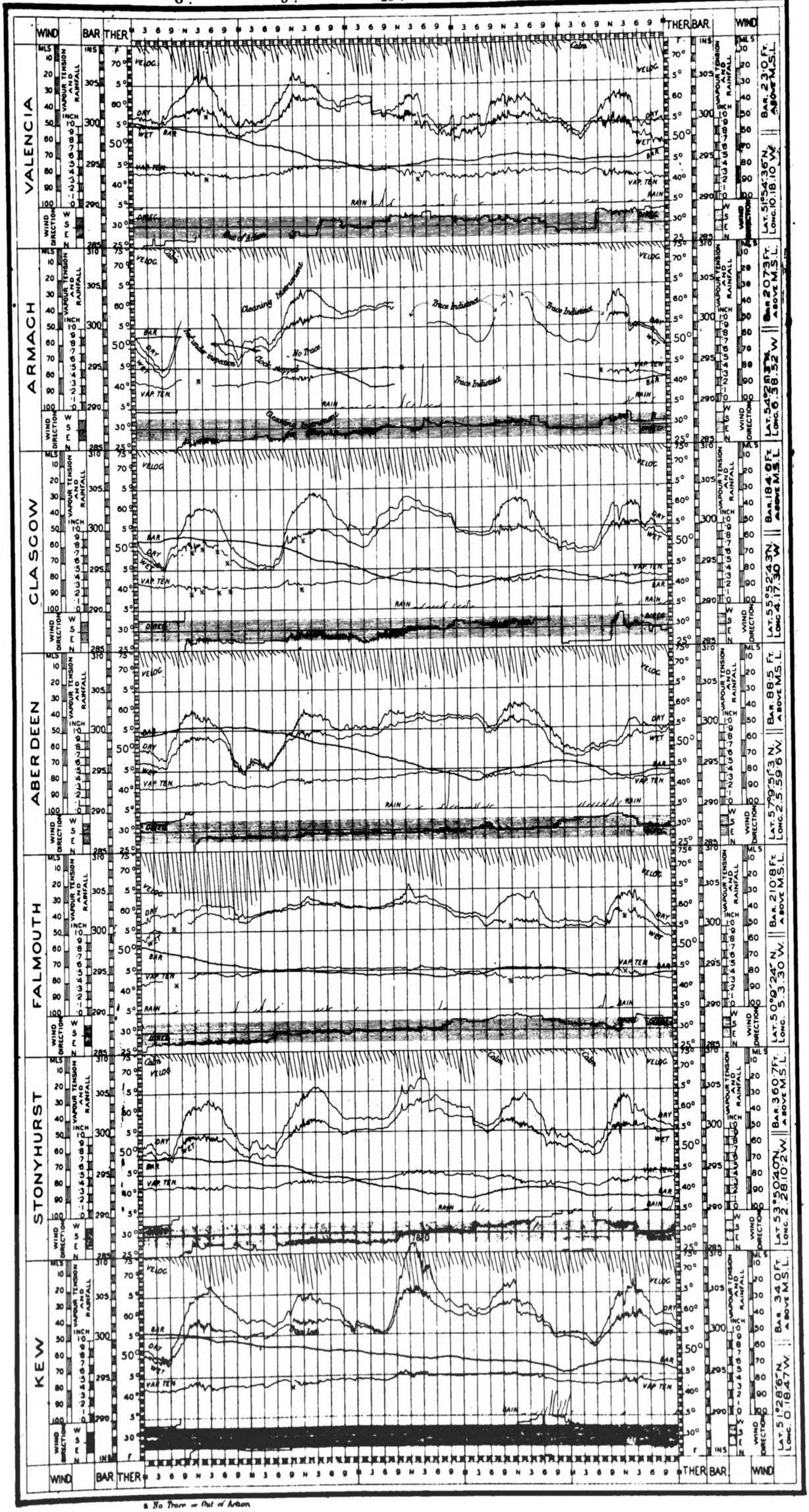
SEPTEMBER — 1880.

8TH 9TH 10TH 11TH 12TH

Plate II.

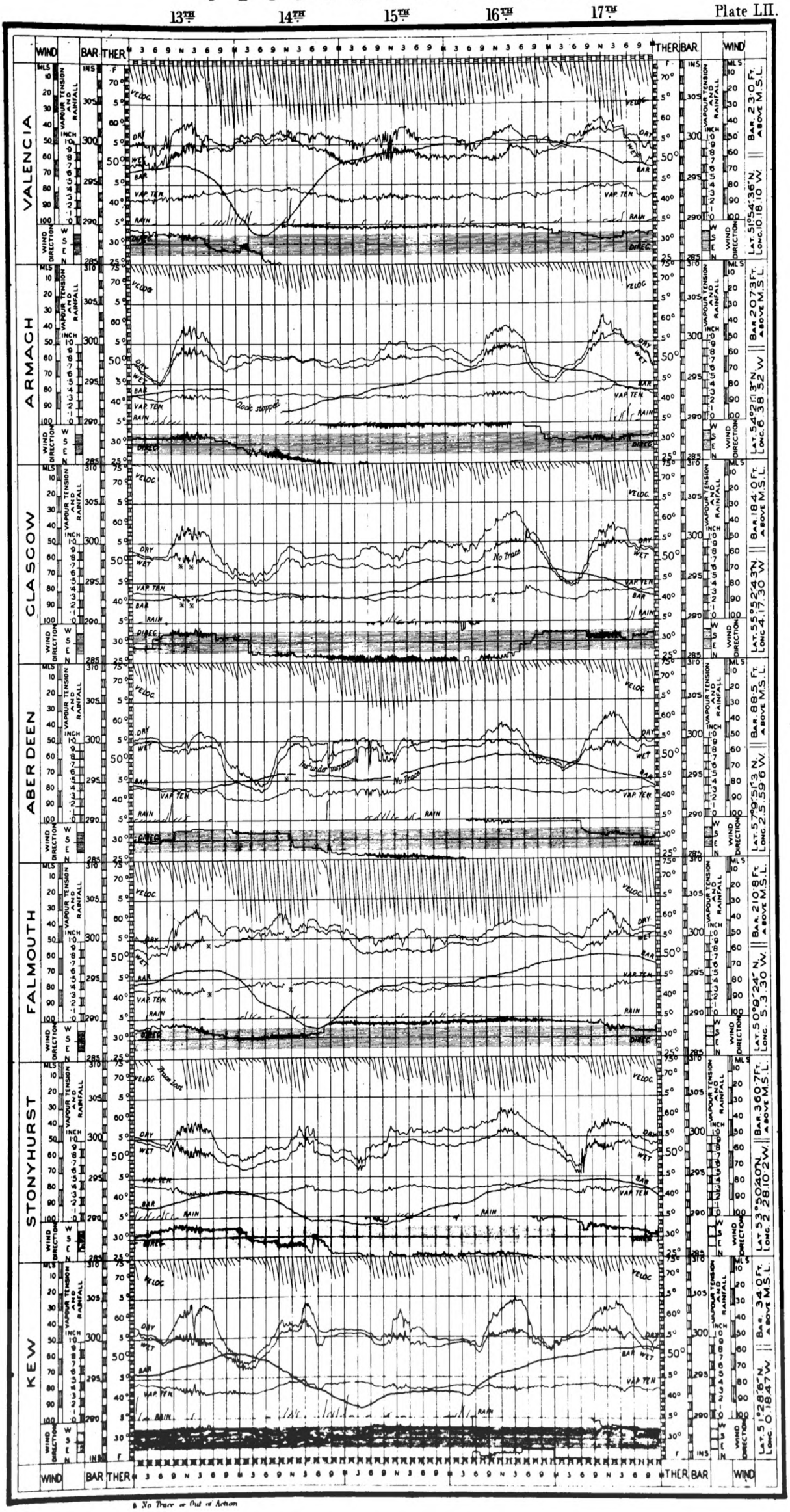


a No Trace or Out of Action

S E P T E M B E R — 1 8 8 0.

13TH 14TH 15TH 16TH 17TH

Plate LII.



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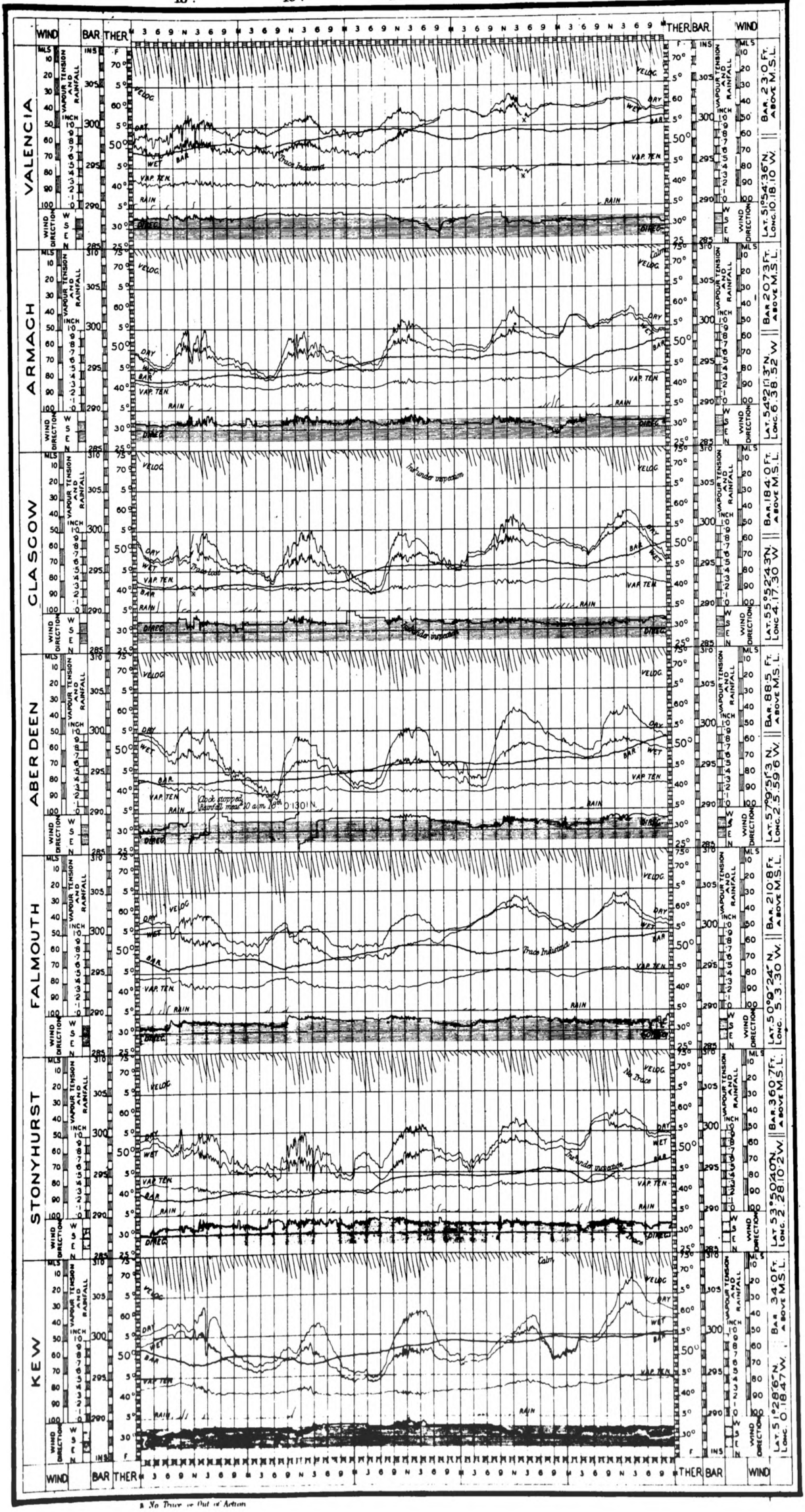
SEPTEMBER — 1880.

18TH 19TH 20TH 21ST 22ND

Plate LIII.

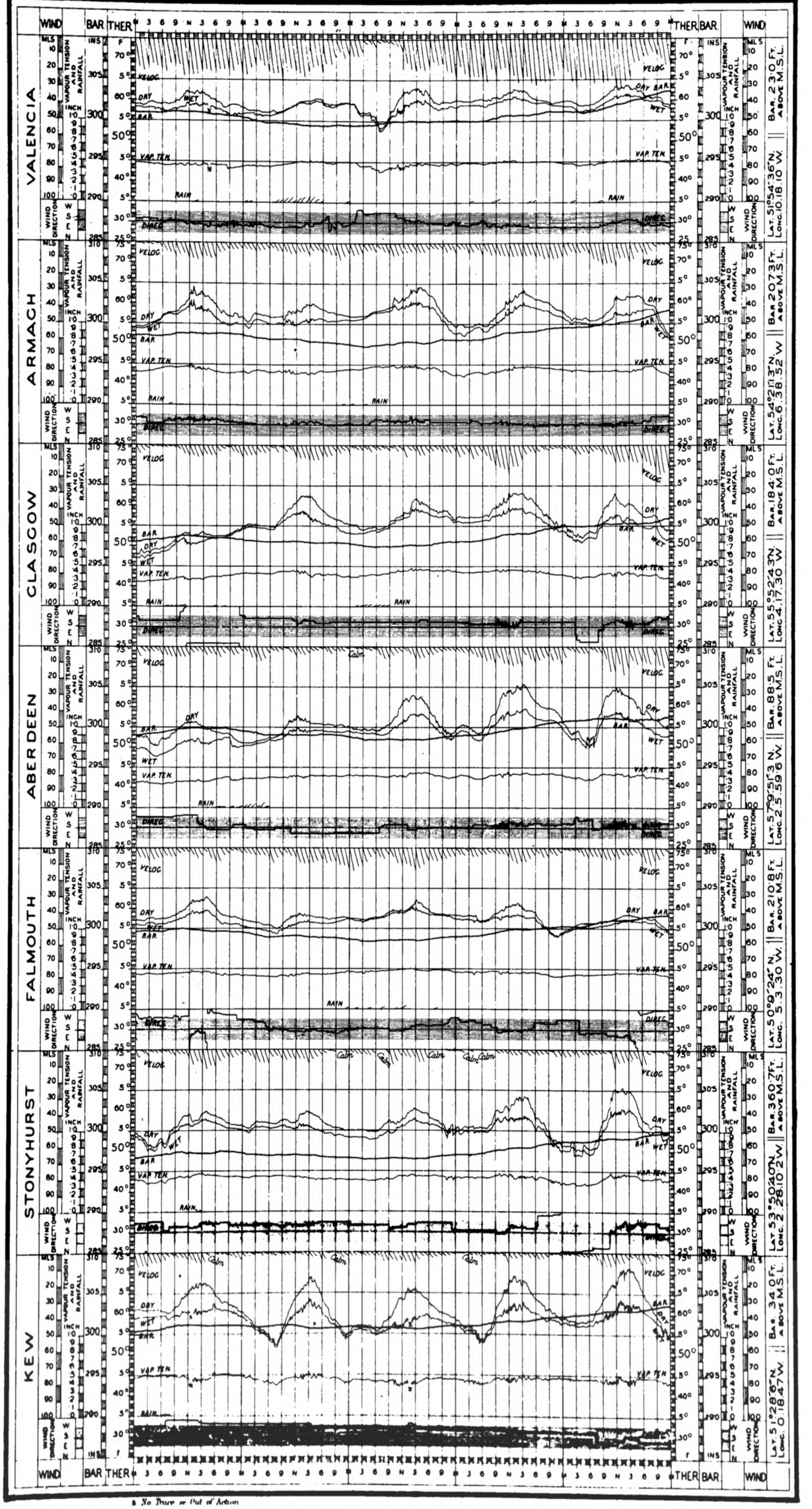


a No Trace or Out of Action

SEPTEMBER ___ 1880.

23RD 24TH 25TH 26TH 27TH

Plate LIV.

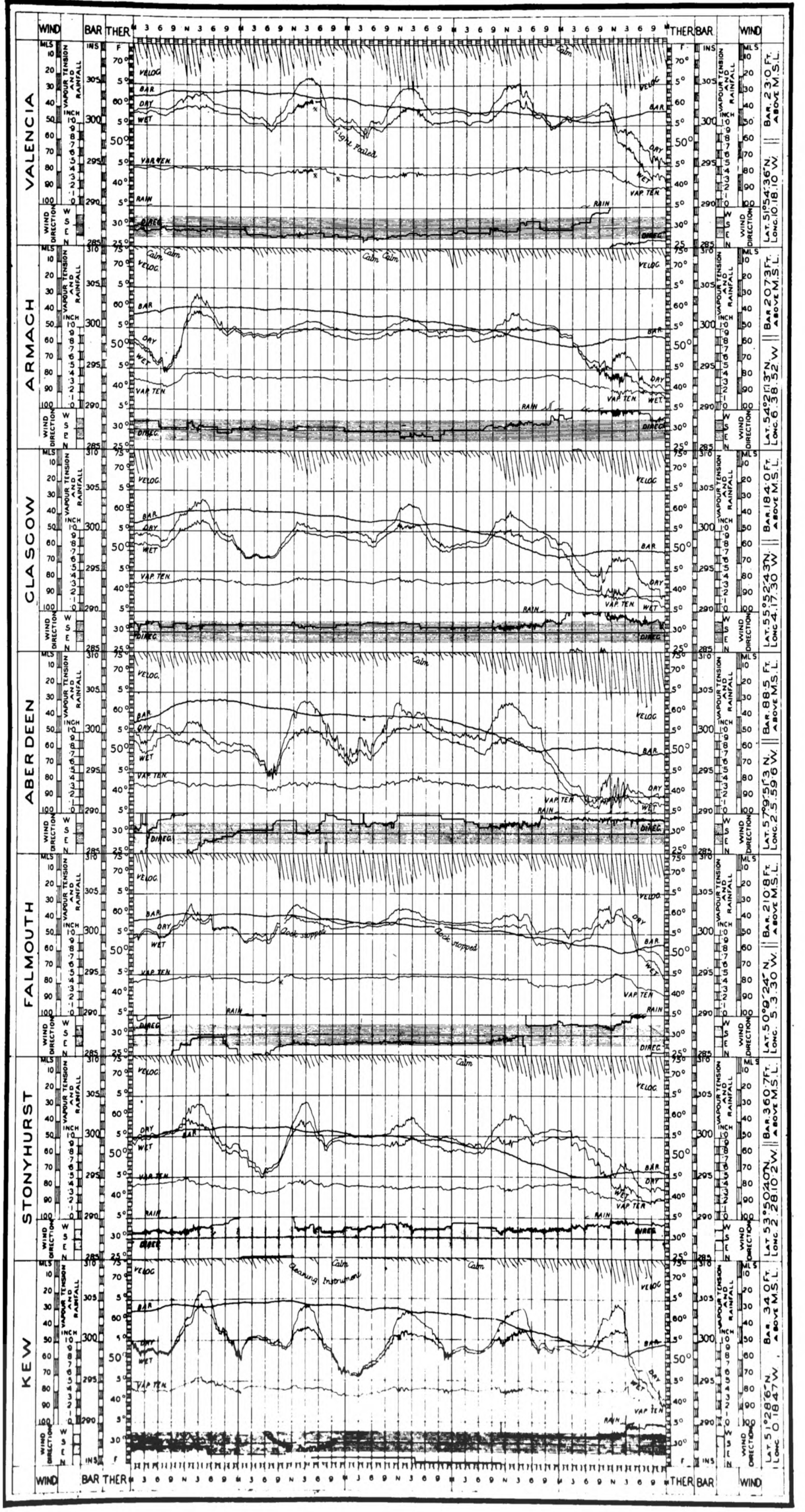


a No Trace or Out of Action

SEPTEMBER — OCTOBER — 1880.

28TH 29TH 30TH 1ST 2ND

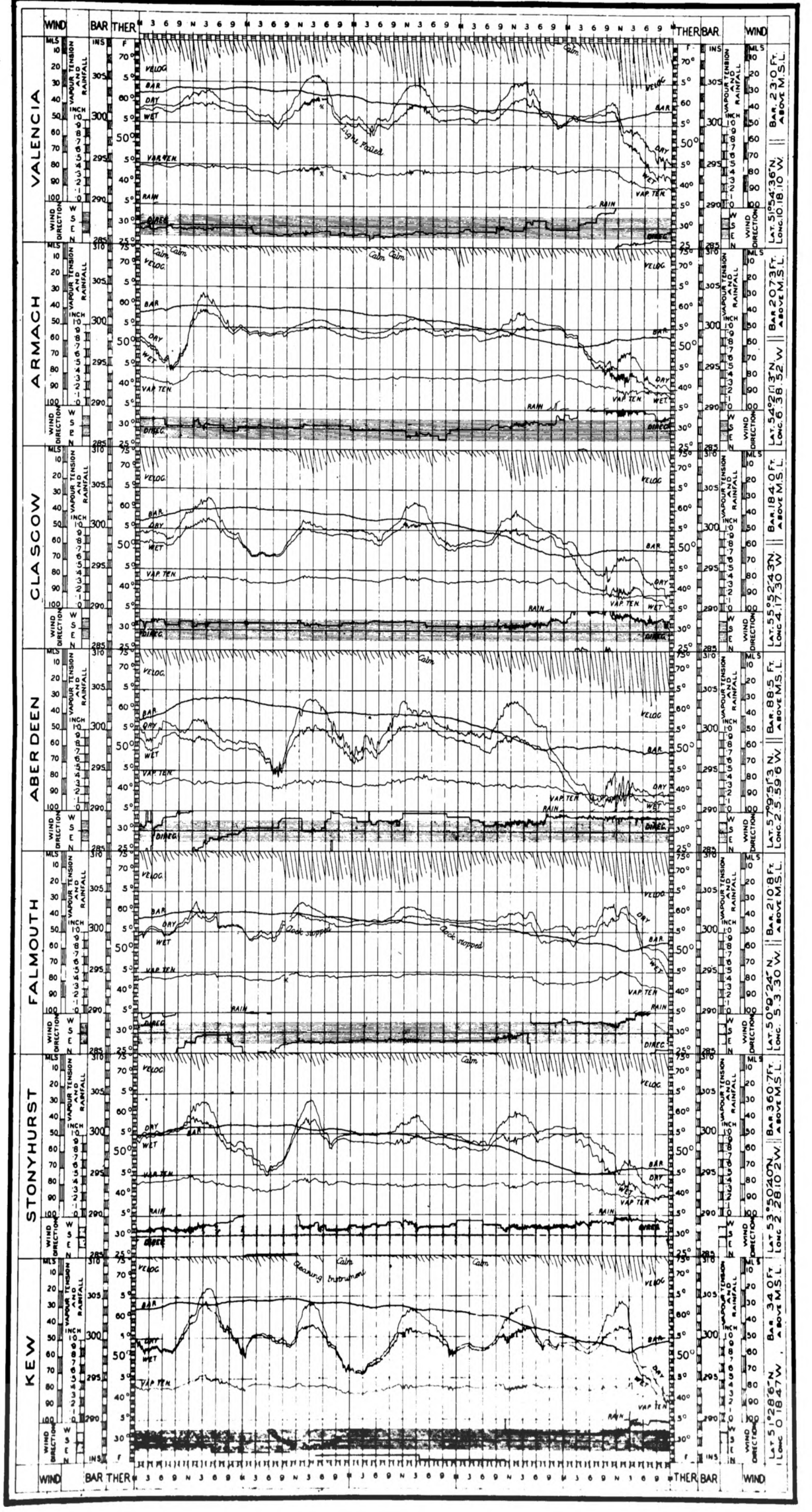
Plate LV.



SEPTEMBER — OCTOBER — 1880.

28TH 29TH 30TH 1ST 2ND

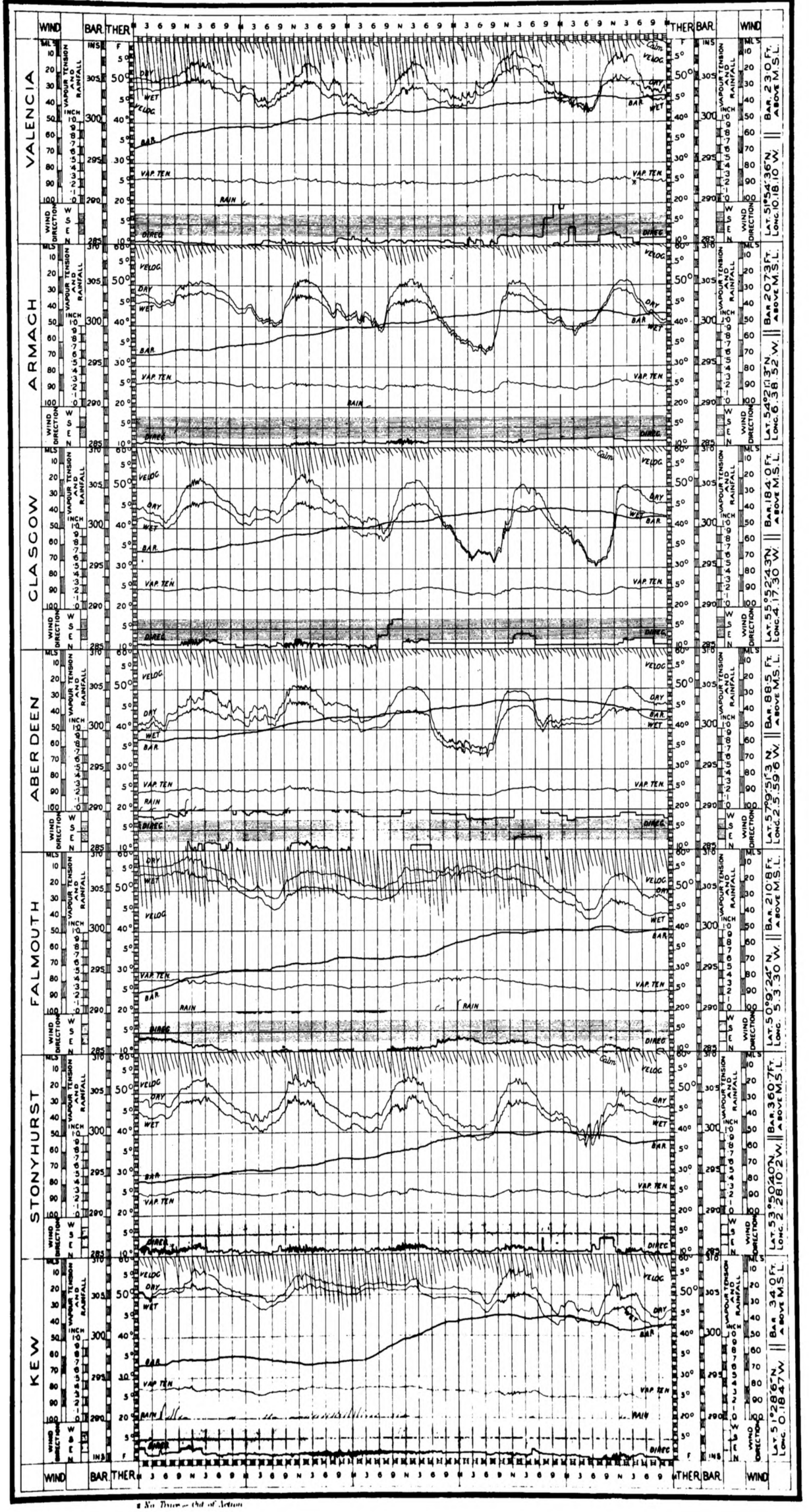
Plate LV.



OCTOBER — 1880.

8TH 9TH 10TH 11TH 12TH

Plate LVII.

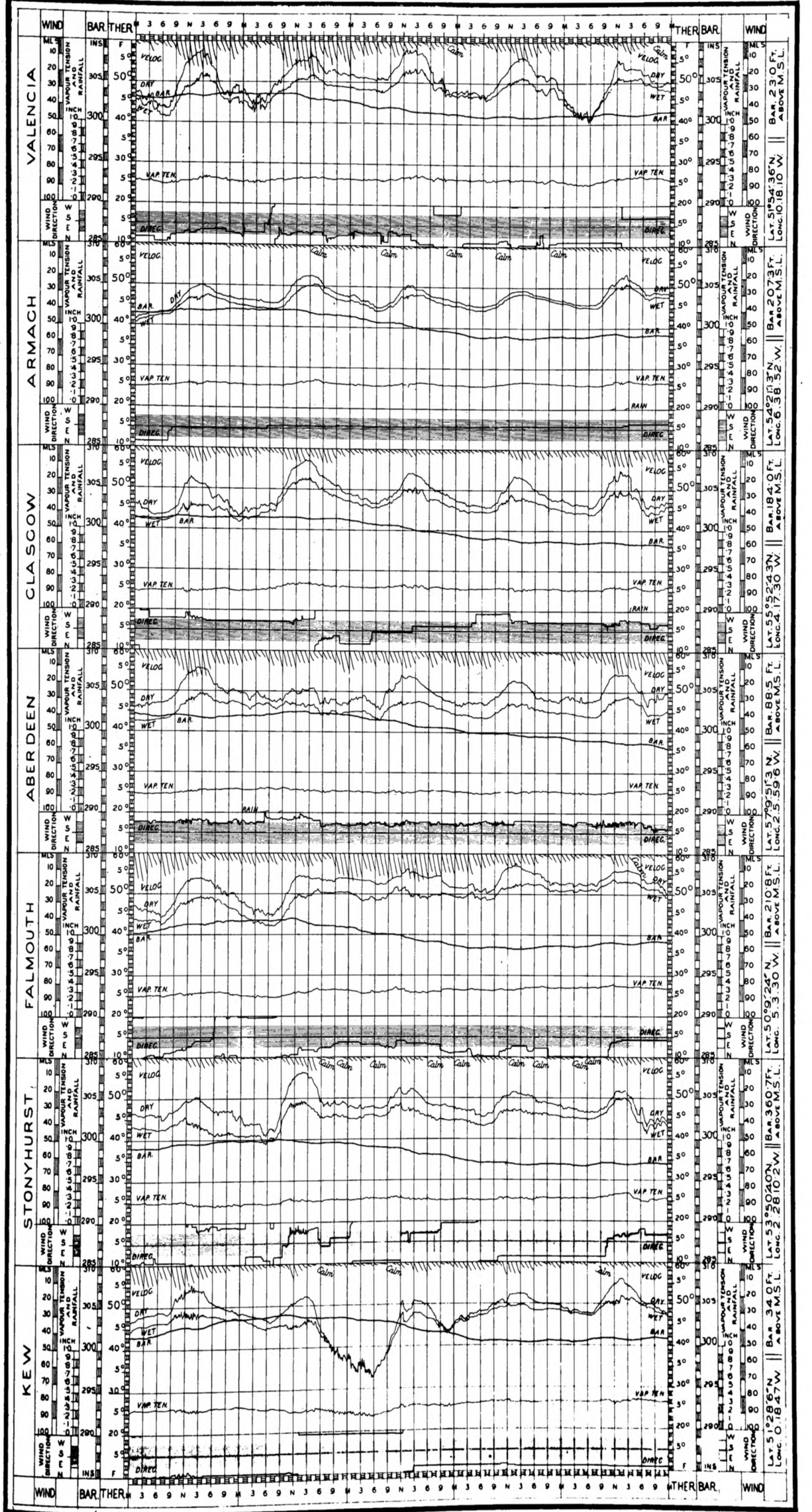


* No Trace or Out of Action

OCTOBER ____ 1880.

13TH 14TH 15TH 16TH 17TH

Plate LVIII.



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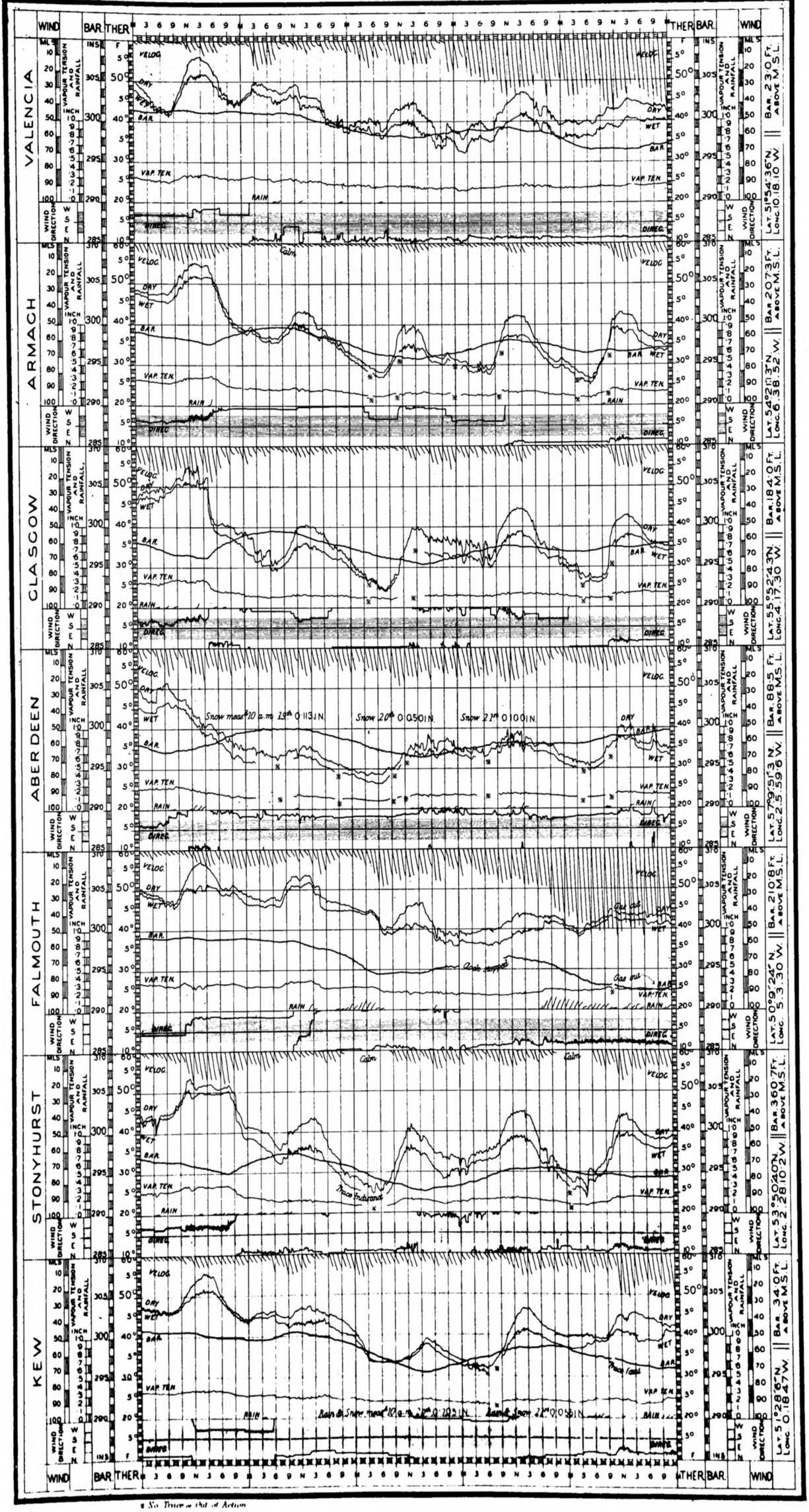
OCTOBER — 1880.

18TH 19TH 20TH 21ST 22ND

Plate LIX.



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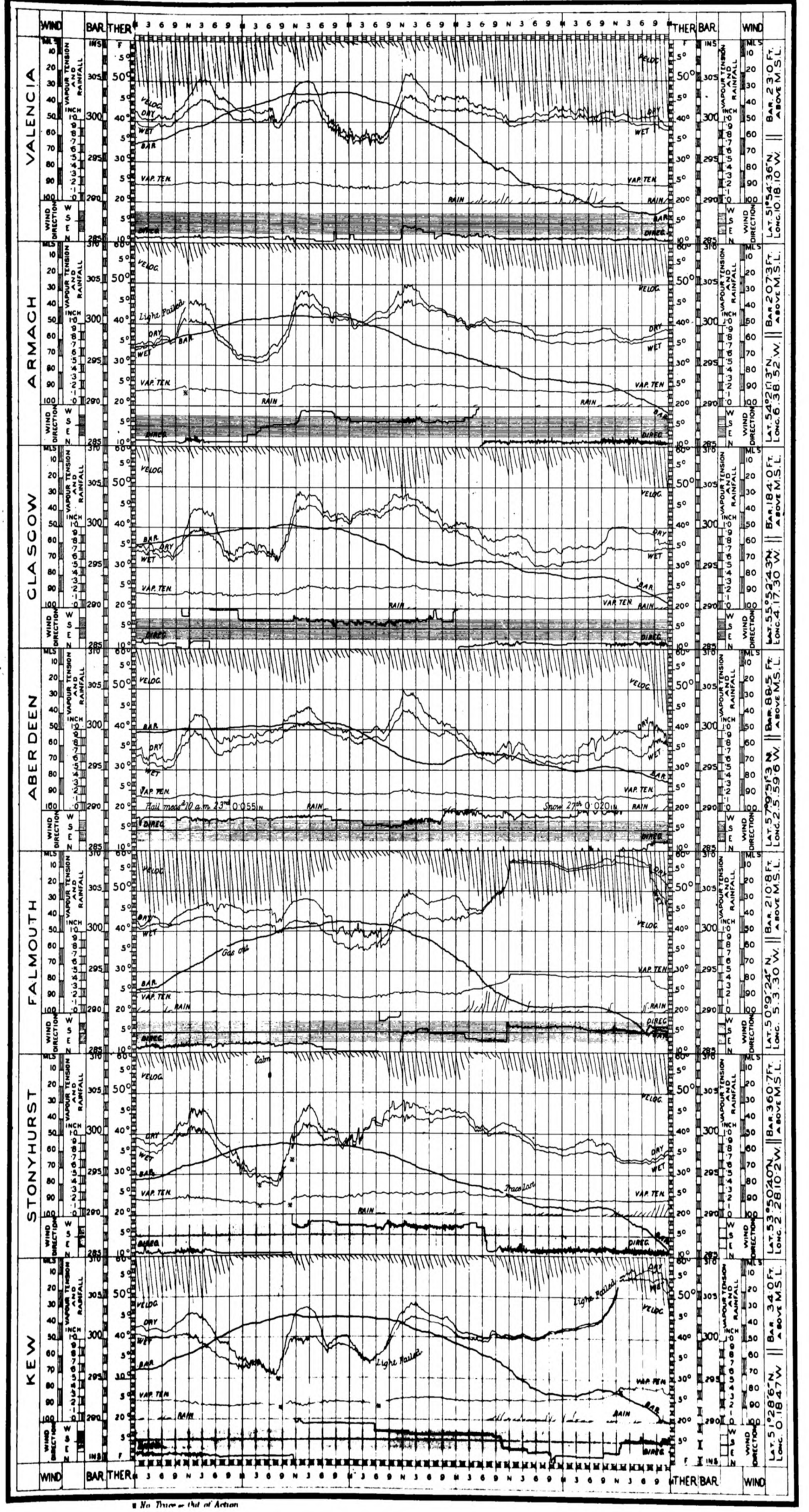
OCTOBER ____ 1880.

23RD 24TH 25TH 26TH 27TH

Plate LX.



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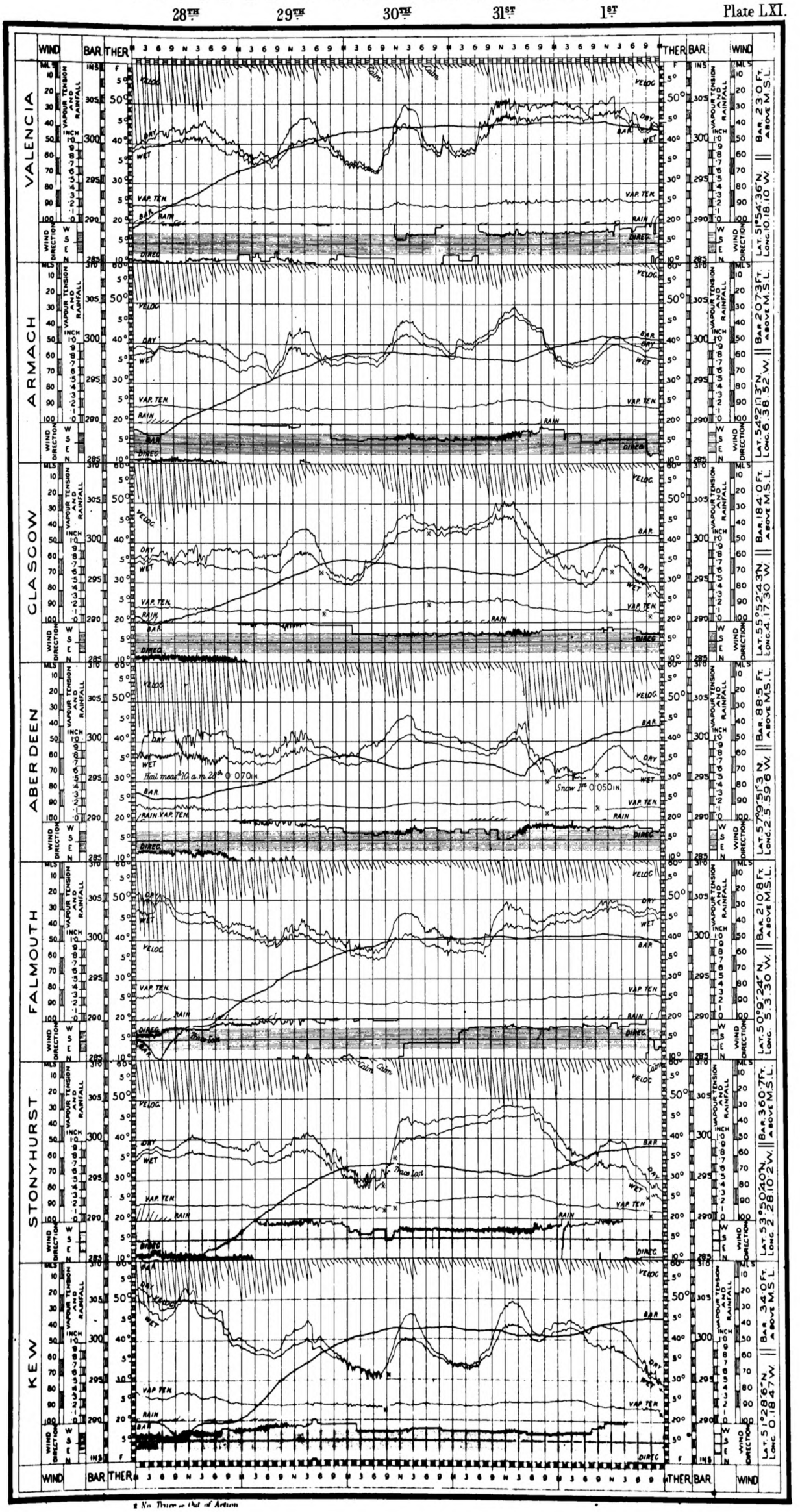
OCTOBER & NOVEMBER ——— 1880.

28TH 29TH 30TH 31ST 1ST

Plate LXI.

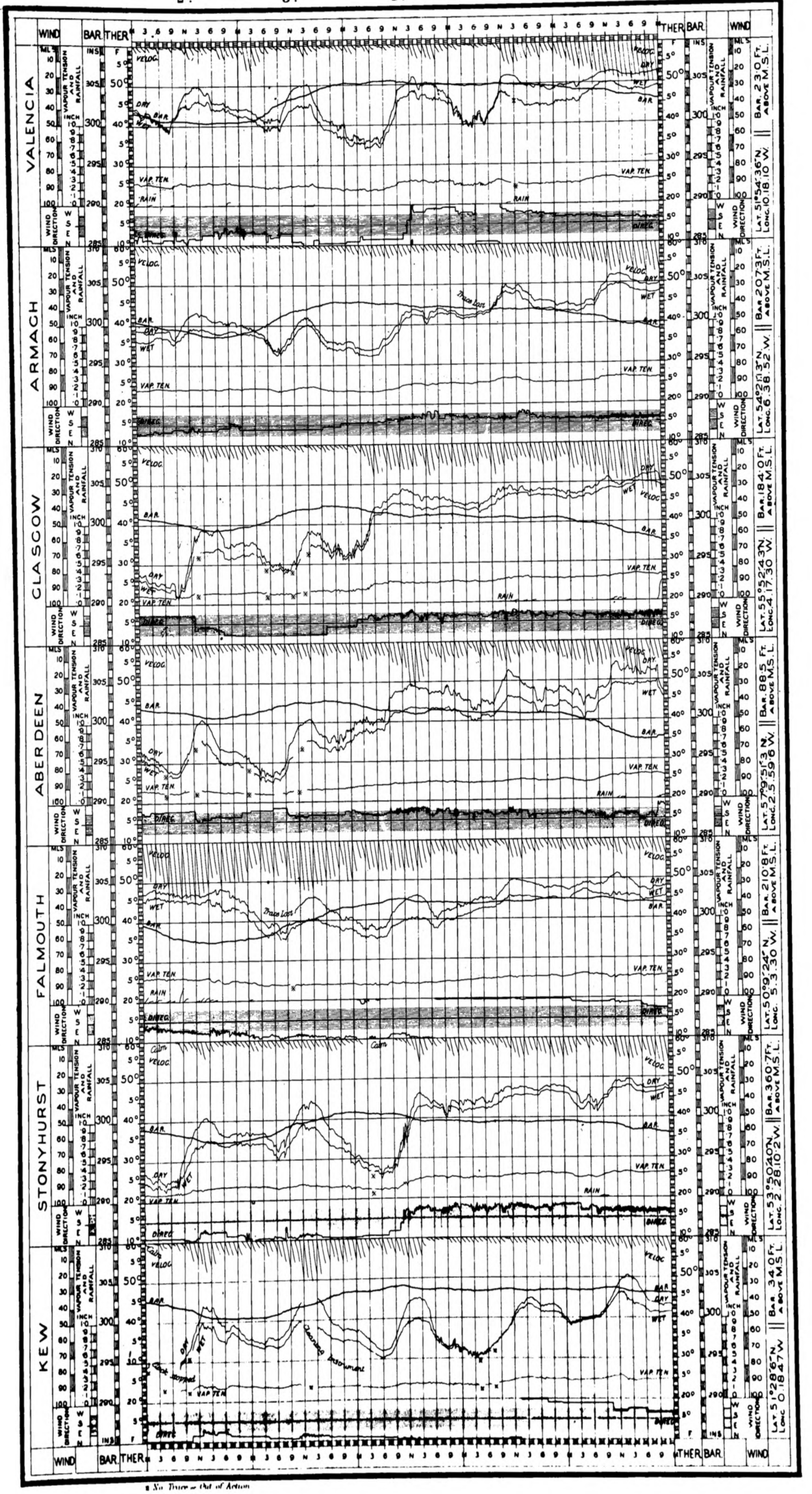


* No Traces or Out of Action

NOVEMBER — 1880.

2ND 3RD 4TH 5TH 6TH

Plate LXII.

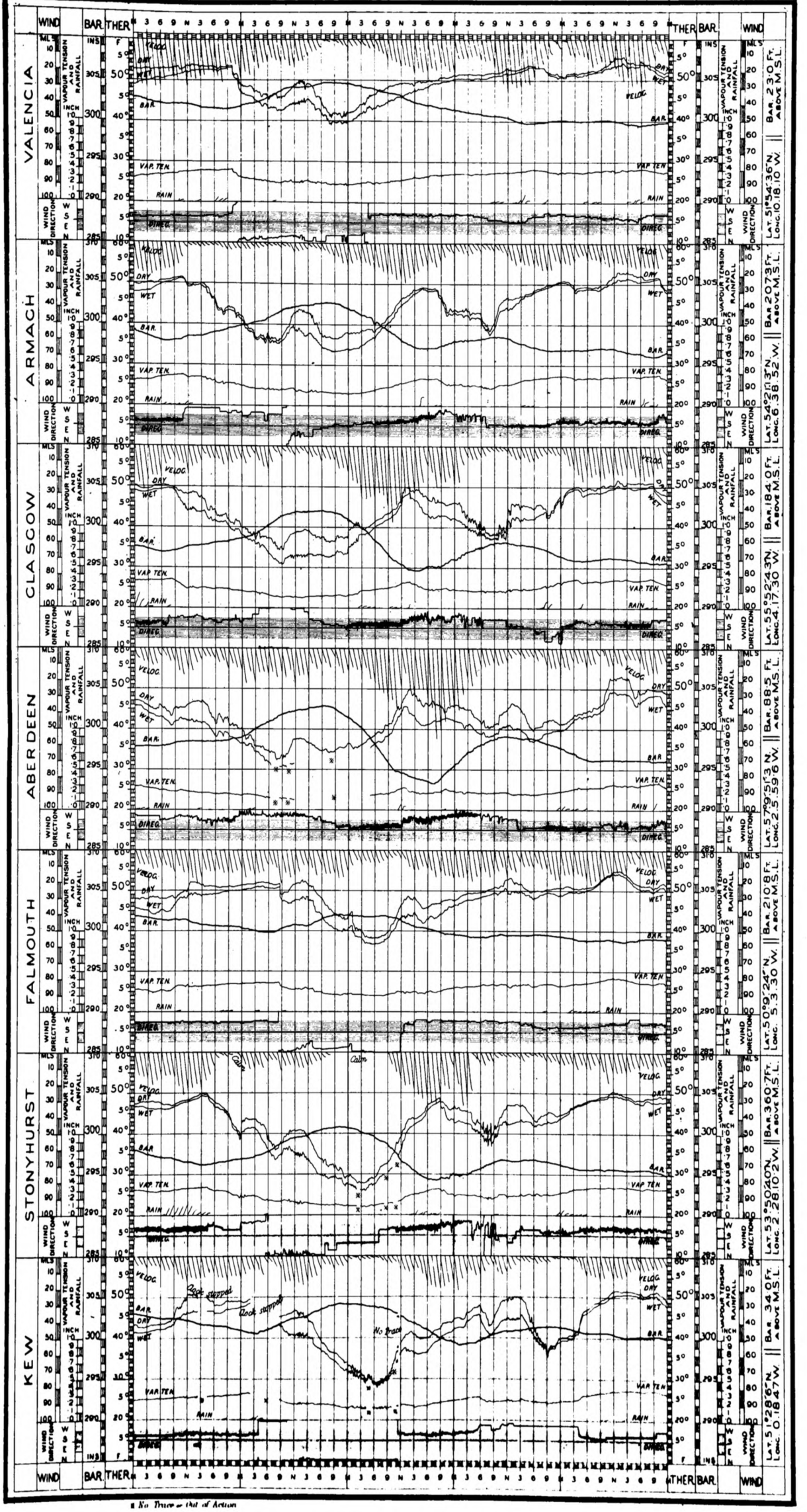


* No Trace or Out of Action

NOVEMBER — 1880.

7TH 8TH 9TH 10TH 11TH

Plate LXIII.

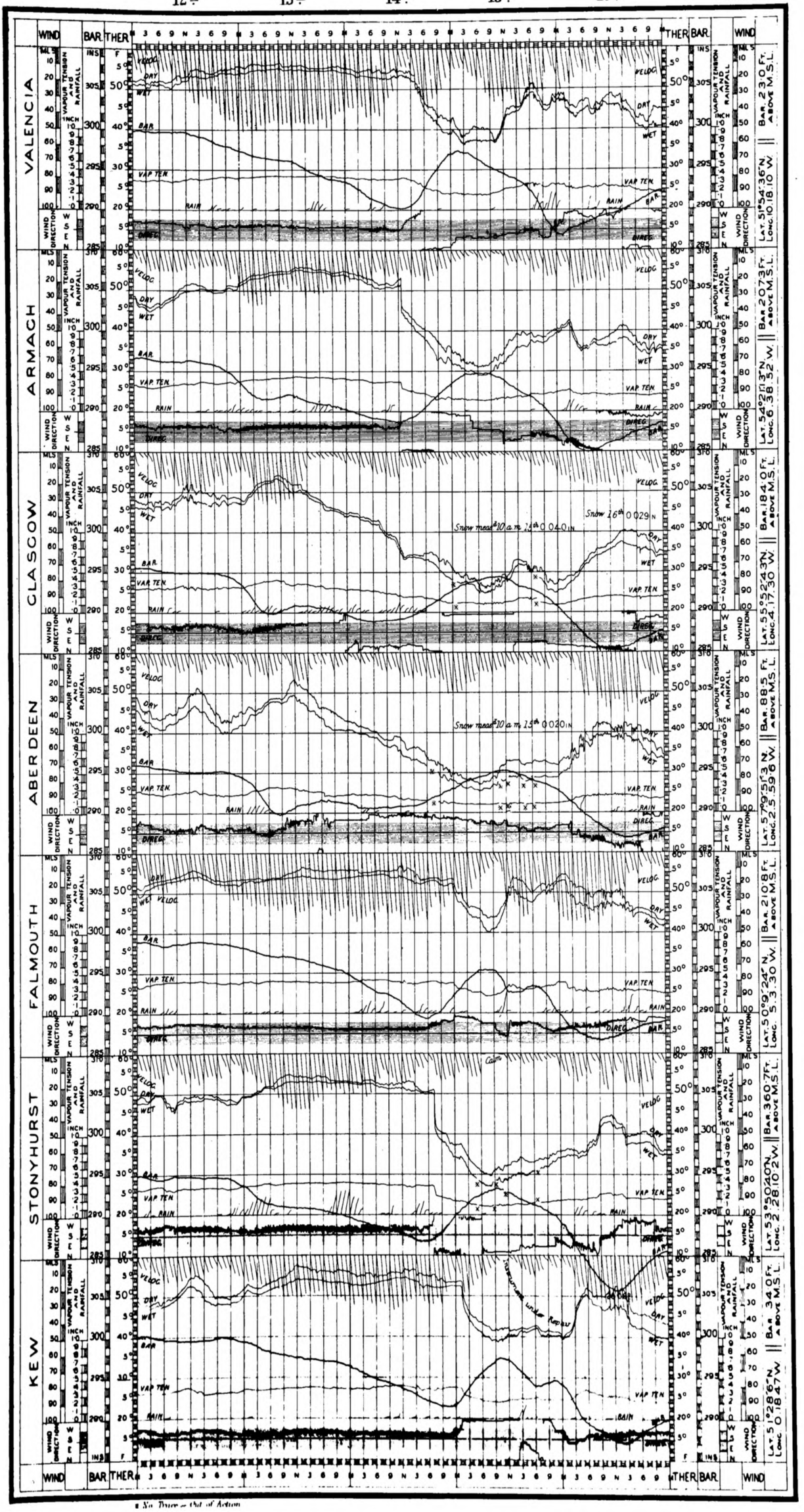


No Trace = Out of Action

NOVEMBER ____ 1880.

12TH 13TH 14TH 15TH 16TH

Plate LXIV.



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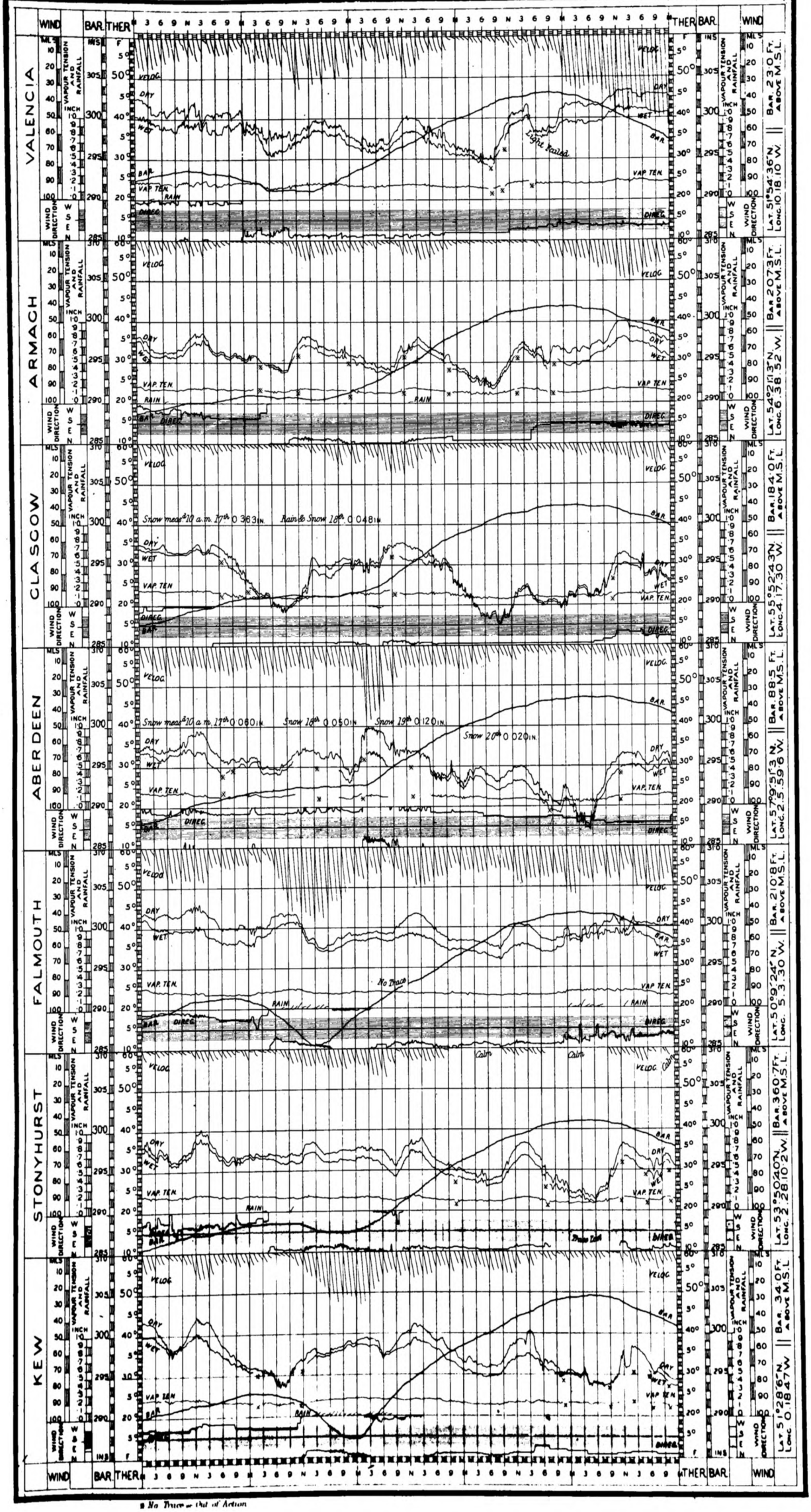
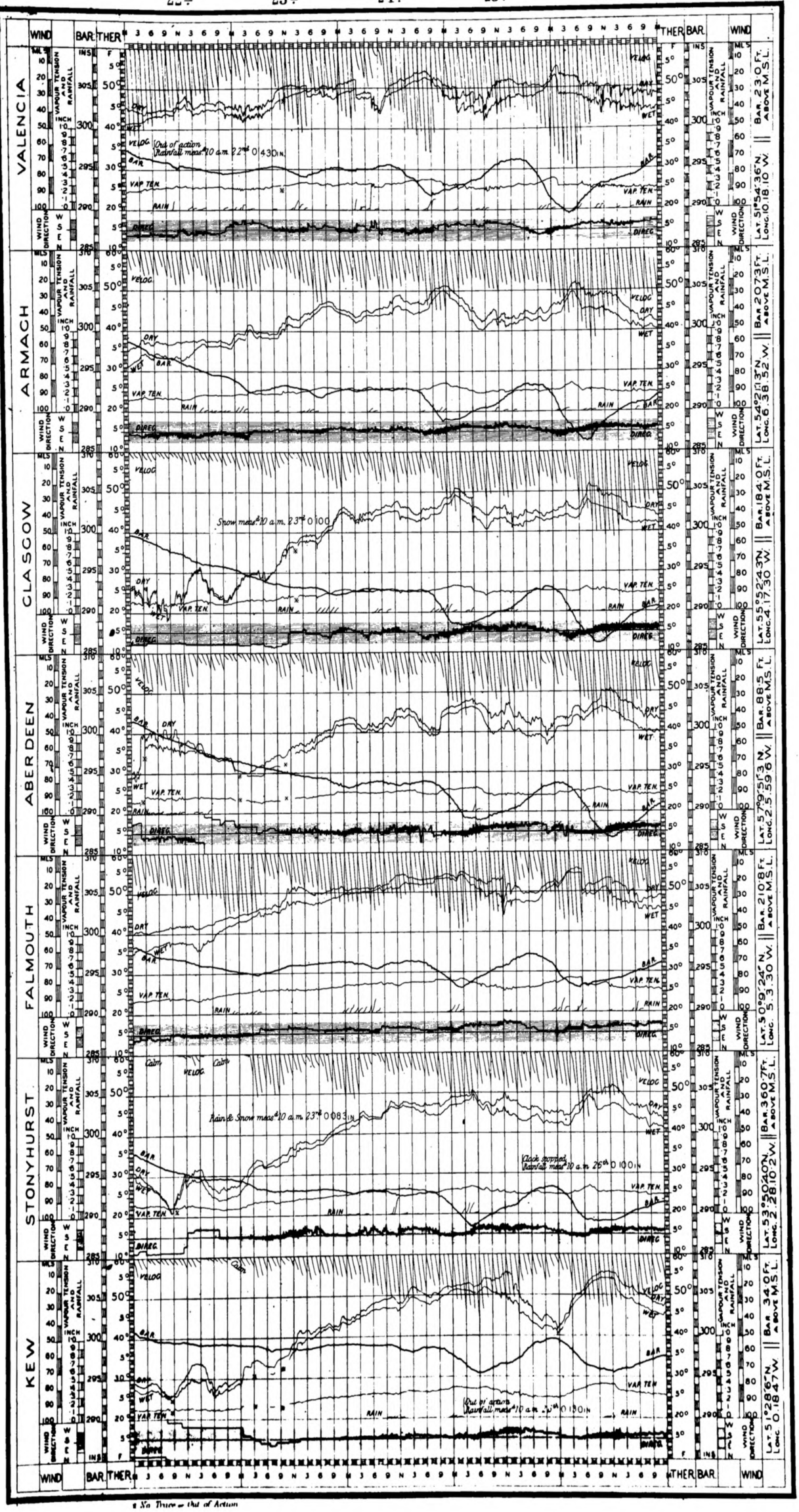


* No Traces or Out of Action

NOVEMBER ____ 1880.

22ND 23RD 24TH 25TH 26TH

Plate LXVI.



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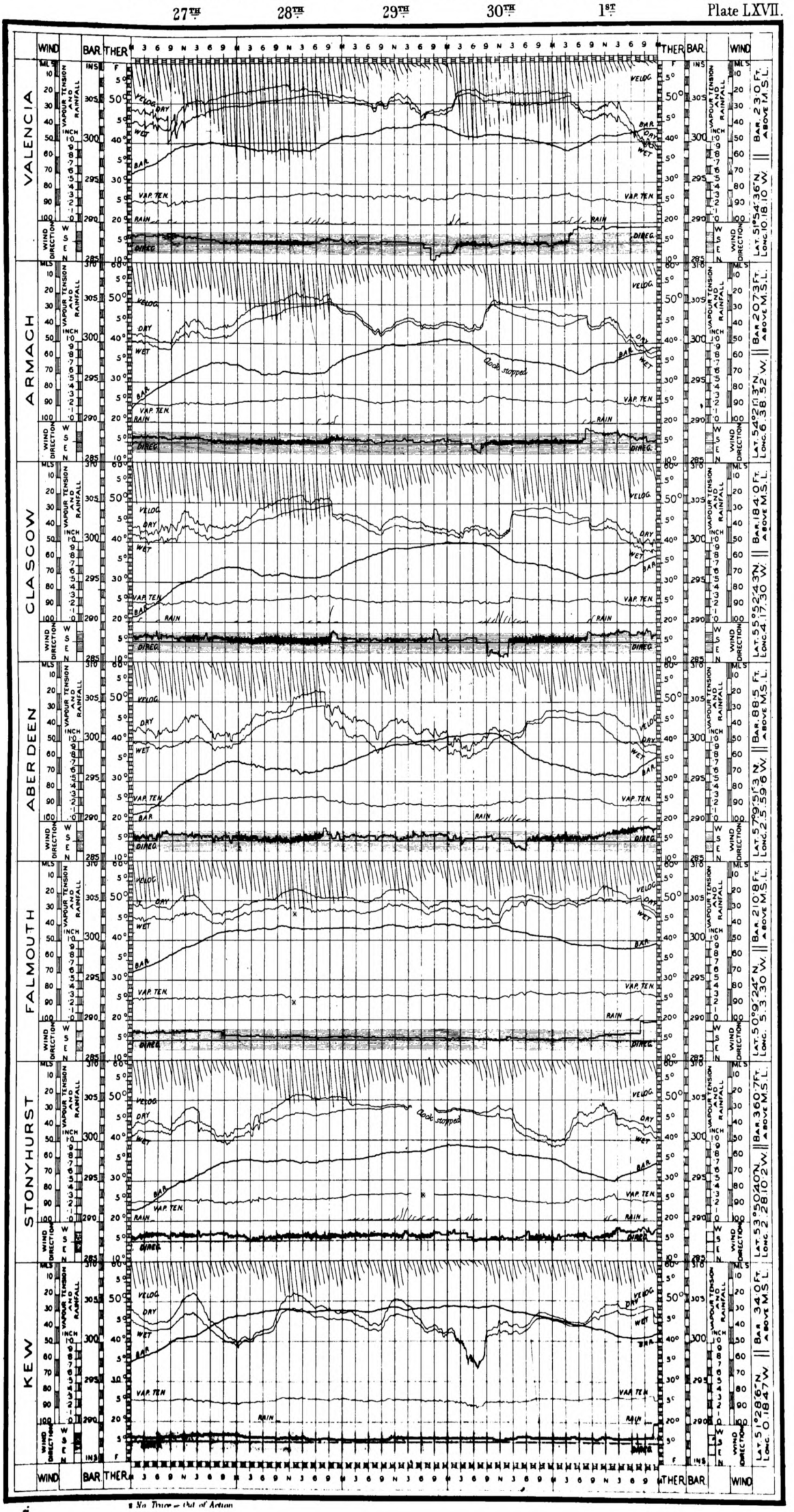

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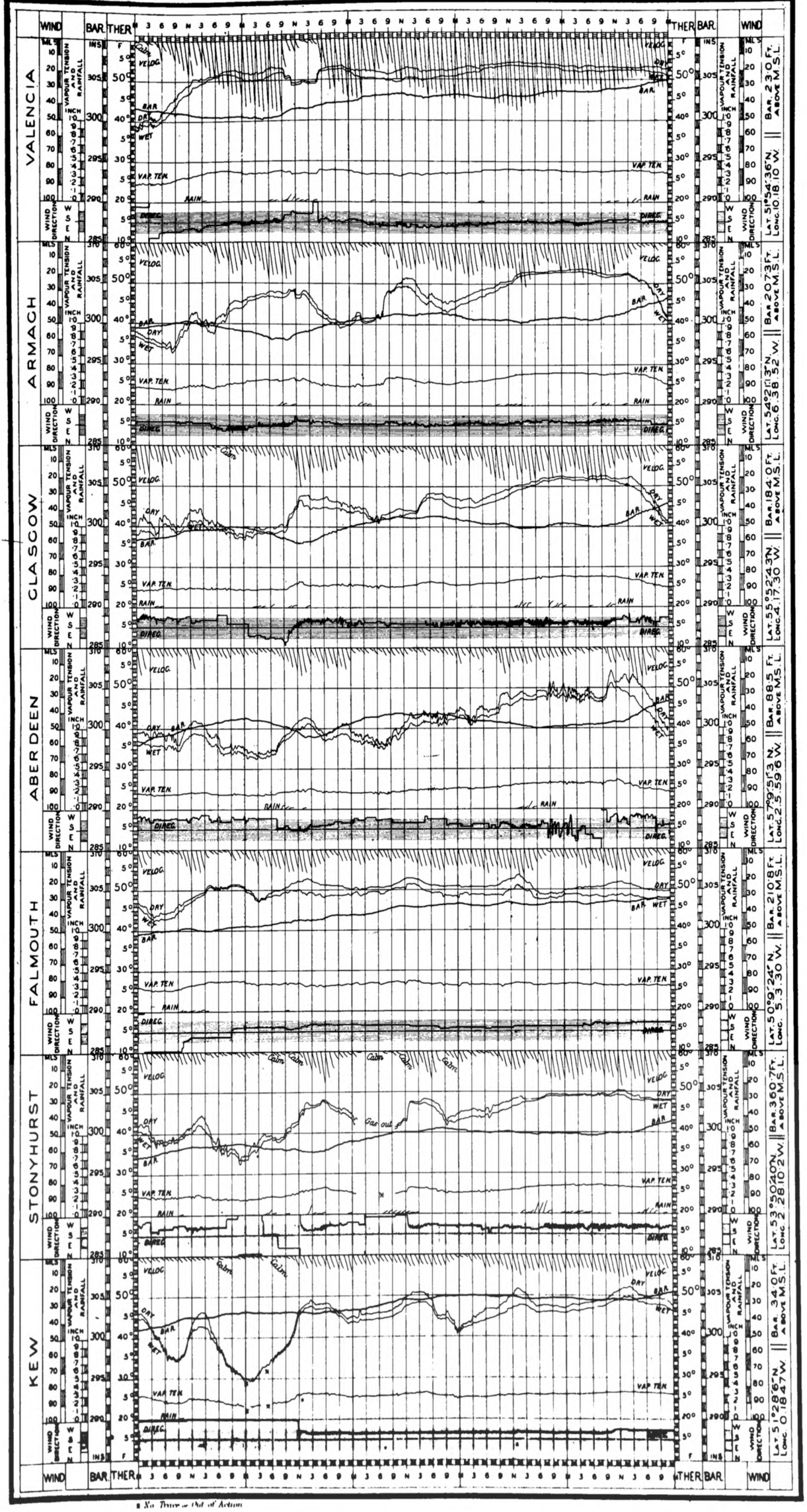
DECEMBER — 1880.

2ND 3RD 4TH 5TH 6TH

Plate LXVIII.



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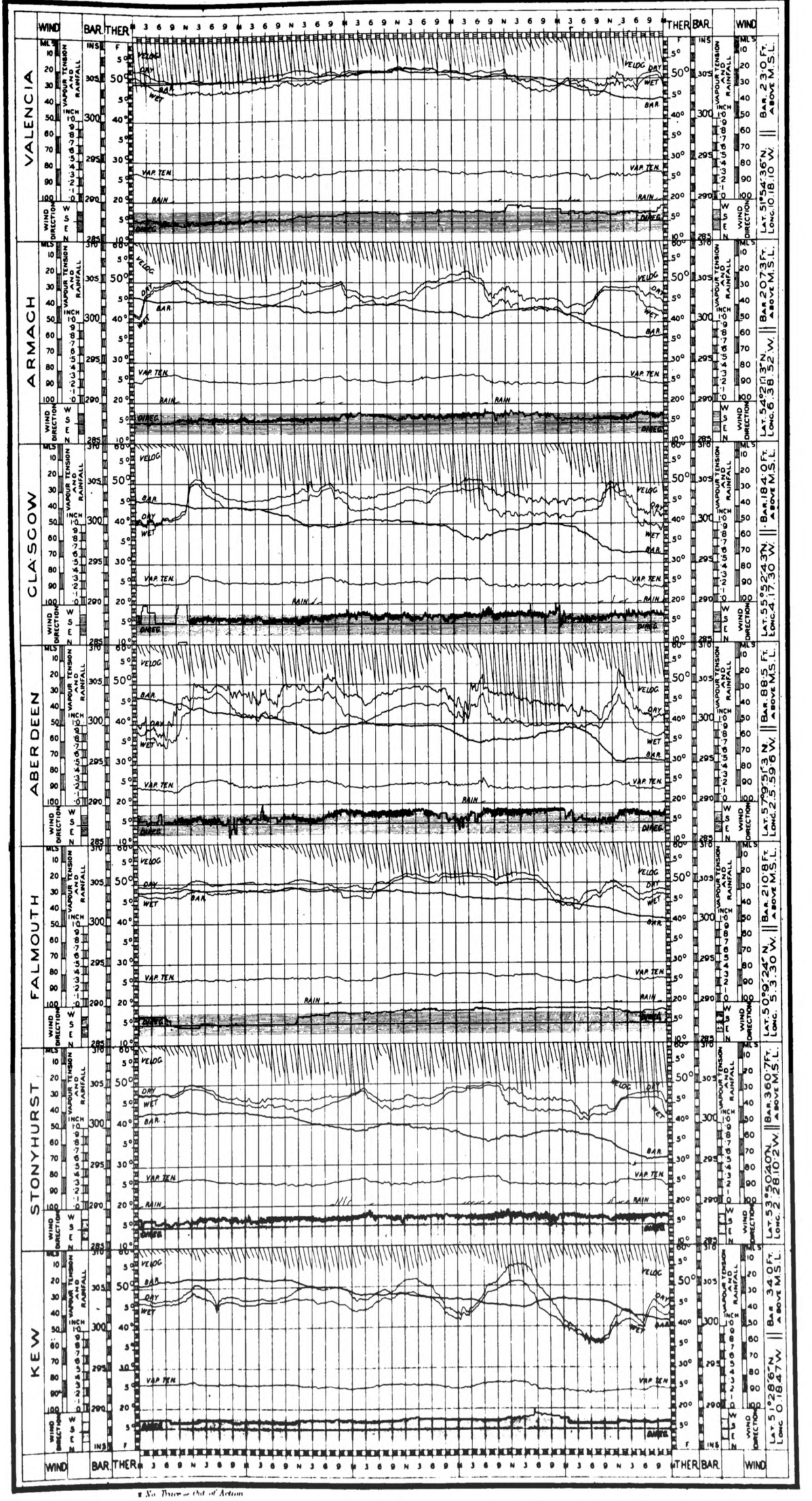
DECEMBER — 1880.

7TH 8TH 9TH 10TH 11TH

Plate LXIX.



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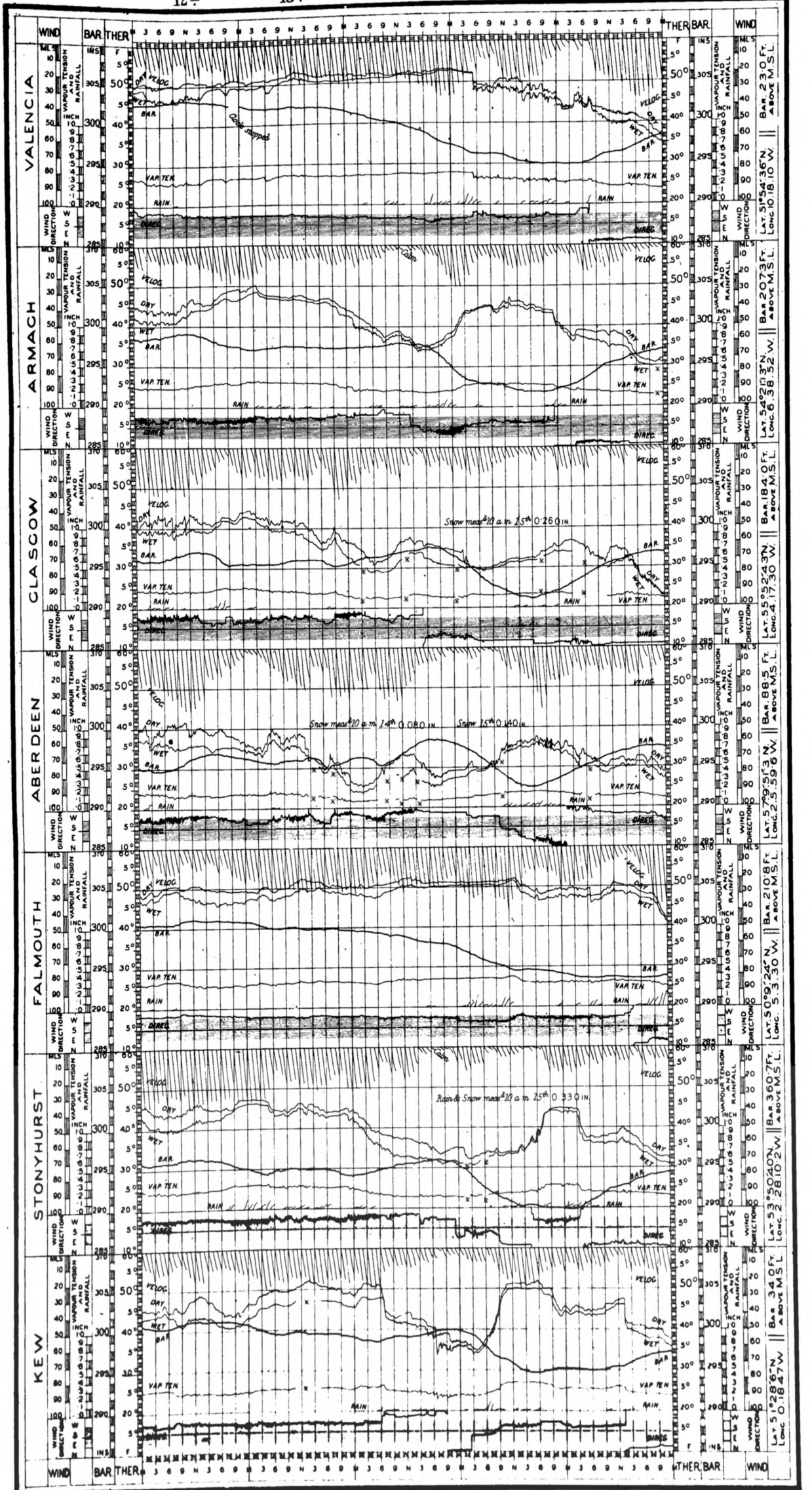
DECEMBER — 1880.

Plate LXX.



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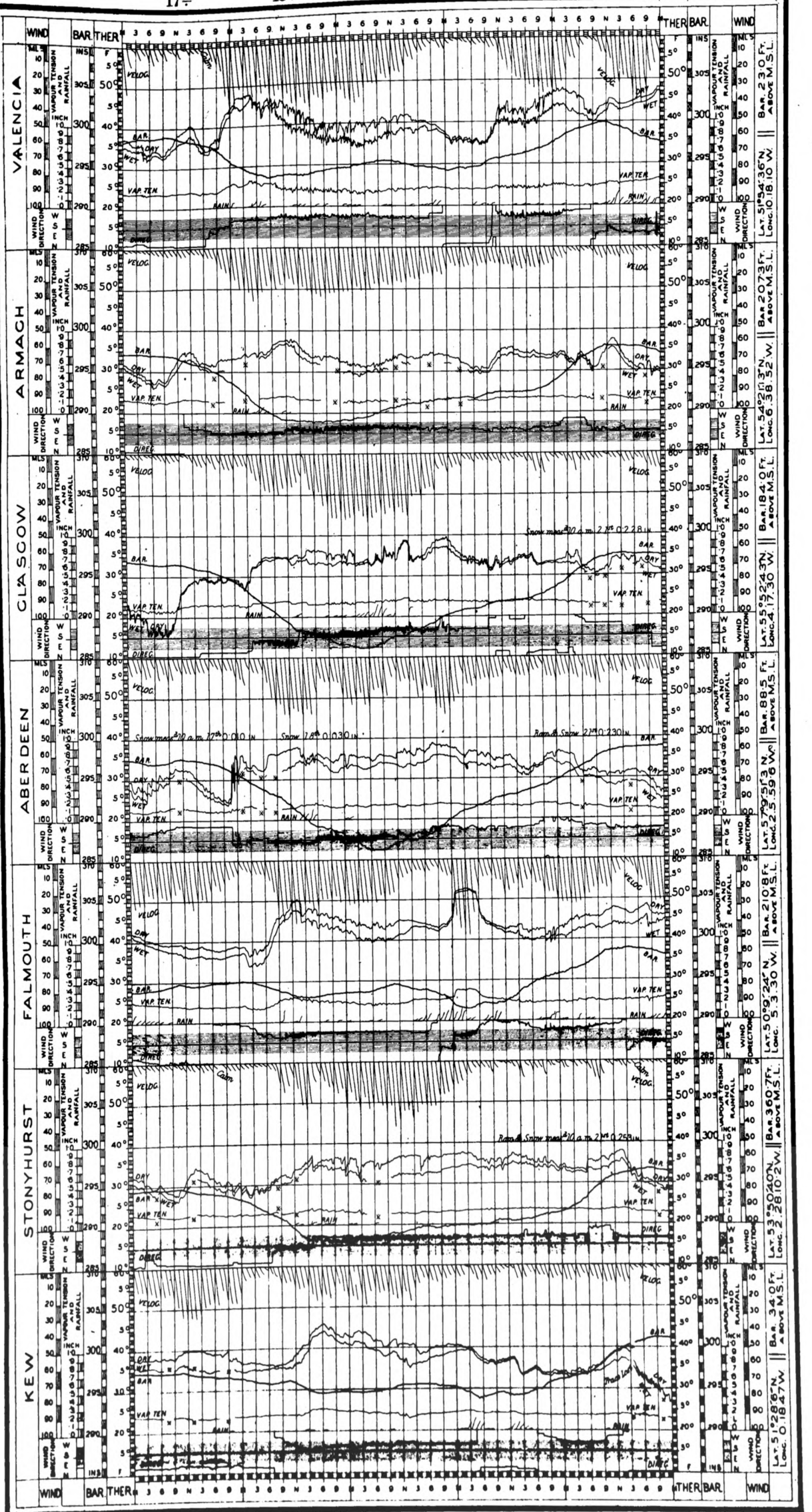
DECEMBER ——— 1880.

Plate LXXI.

17TH 18TH 19TH 20TH 21ST



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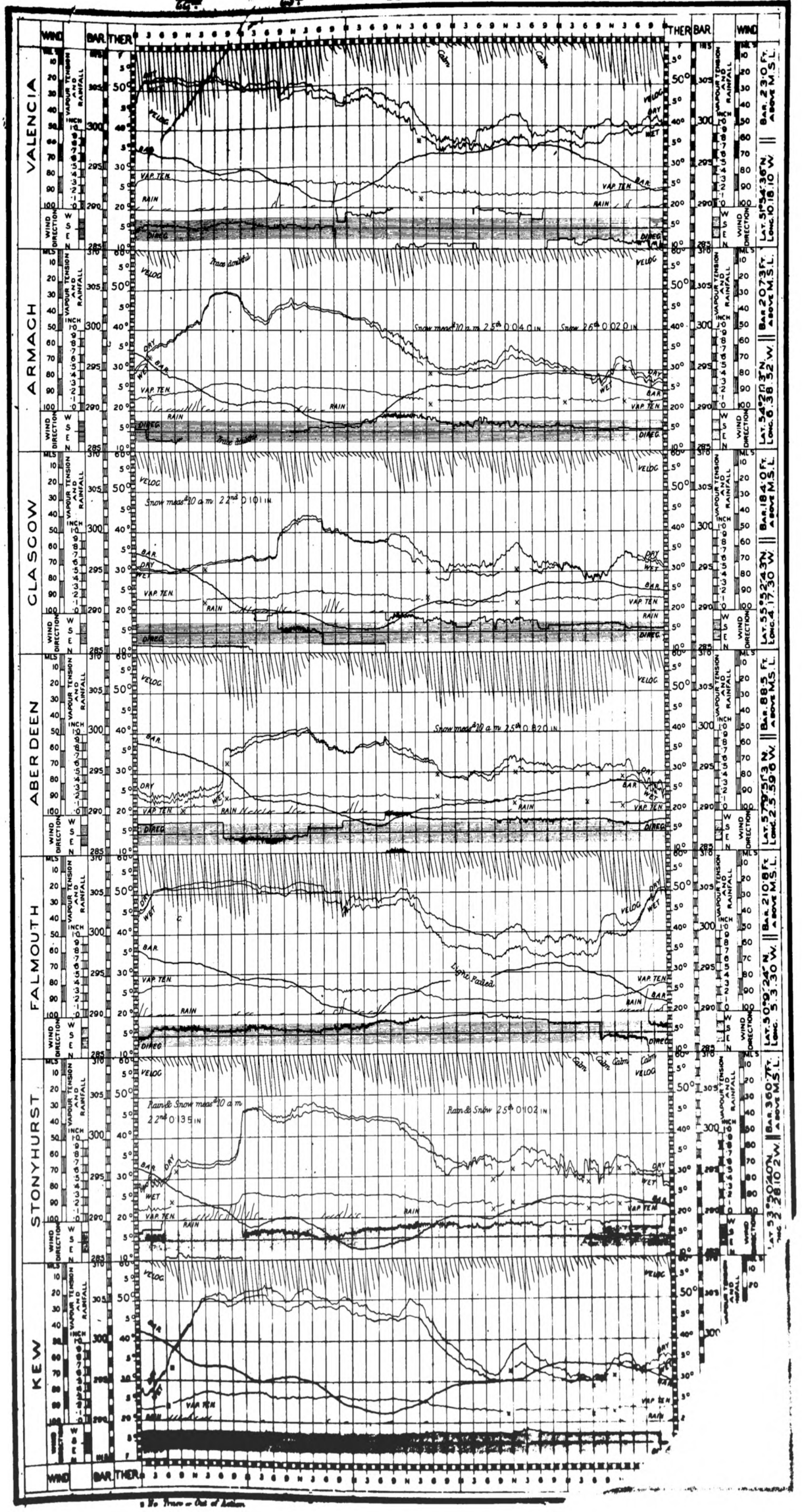
DECEMBER 1880.

Plate LXXII



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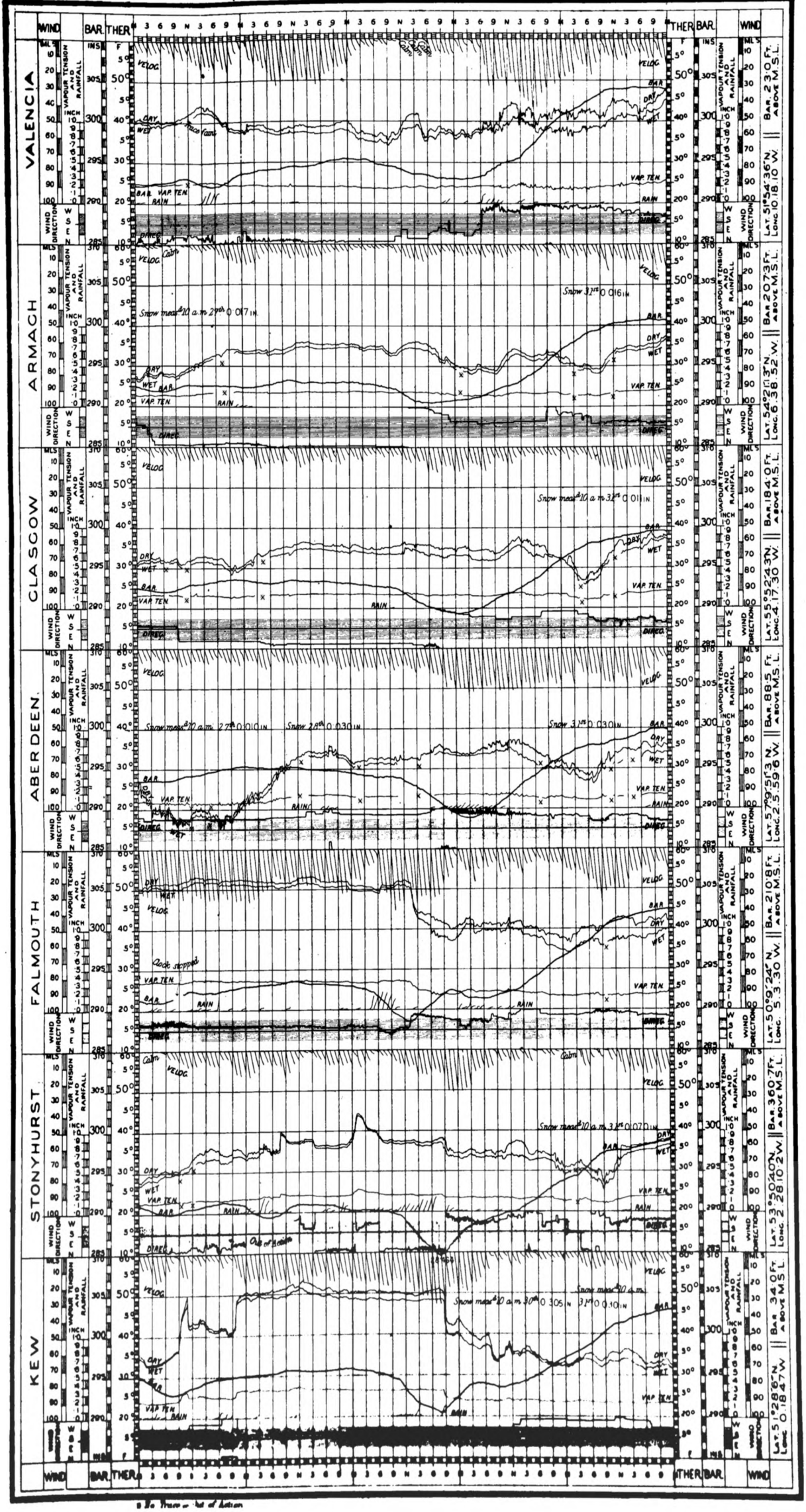
DECEMBER ____ 1880.

27TH 28TH 29TH 30TH 31ST

Plate LXXIII.



* No Trace – Ed. of Letters